

## LICENSURE REGULATIONS FOR SCHOOL PERSONNEL

### 8VAC20-21-10. Definitions.

The following words and terms when used in this chapter shall have the meanings indicated, unless the context clearly implies otherwise:

"Accredited institution" means an institution of higher education accredited by a regional accrediting agency recognized by the United States Department of Education.

~~"Alternative~~ Alternate route to licensure" means one route to licensure available to individuals ~~employed by a Virginia education agency who meet the guidelines specified in 8VAC 20-21-80.~~ in the categories specified in 8VAC20-21-50.A1 and 8VAC20-21-80.

"Alternate route license" means a nonrenewable license issued for a period not to exceed three years to individuals who have met the requirements specified in 8VAC20-21-50A1. This license type includes the Alternate Route: Special Education Conditional License and the Alternate Route: Eligibility License.

"Approved program" means a professional education program recognized as meeting state standards for the content and operation of such programs so graduates of the program will be eligible for state licensure. The Board of Education has the authority to approve programs in Virginia.

"Cancellation" means the annulment, voiding, or invalidation of a teaching license following voluntary surrender of the license by the license holder.

"Certified provider" means a provider certified by the Department of Education to provide preparation and training for applicants seeking the eligibility license specified in 8VAC20-21-80.

"Collegiate Professional License" means a five-year, renewable license available to an individual who has satisfied all requirements for licensure, including the professional teacher's assessment prescribed by the Board of Education.

"Competency" means a capability or skill that a person possesses and can demonstrate, given the appropriate resources and conditions. As used in this chapter, a competency refers to a behavior that a licensure candidate should be able to demonstrate prior to being issued a teaching license. In most cases, entry level proficiency relative to the competency is specified rather than desired mastery level proficiency.

"Content area course work" means courses at the undergraduate level (i.e., two-year or four-year institution) or at the graduate level that will not duplicate previous courses taken in the humanities, history and social sciences, the sciences, mathematics, health and physical education, and the fine arts. These courses are usually available through the college or department of arts or sciences.

"Denial" means the refusal to grant a teaching license to a new applicant or to an applicant who is reapplying after the expiration of a license.

"Division Superintendent License" means a five-year, renewable license available to an individual who has completed an earned master's degree from an accredited institution of higher education and meets the requirements specified in 8VAC20-21-590630. The individual's name must be listed on the Board of Education's list of eligible division superintendents.

~~"Eligibility License" means a one-year license dated July 1-June 30. The Eligibility License is issued upon successful completion of Level I of the career switcher program. This license requires a bachelor's degree from a regionally accredited institution; the completion of requirements for an endorsement in a teaching area as set forth in this chapter, or the equivalent through verifiable experience or academic study; and Virginia qualifying scores on the professional teacher's assessment as prescribed by the Board of Education. If the Eligibility License expires prior to the individual receiving employment in Virginia, the license holder must~~

~~reapply for the second Eligibility License. The intensive program (Level I) must be repeated if the individual has not gained employment prior to the expiration of the second Eligibility License.~~

"Local Eligibility License" means a license established by the Virginia General Assembly issued to an individual by a local school board based on specified criteria set forth by the Code of Virginia. The Local Eligibility License shall not be issued in the teaching areas of English, reading or language arts, mathematics, science, foreign language, arts, civics and government, economics, history and geography. The license is valid for three years and is not transferable to another school division. The Local Eligibility License is a nonrenewable credential and is not reciprocal with other states.

"Mentor" means a classroom teacher hired by the local school division who has achieved continuing contract status or other instructional personnel including retired teacher who meets local mentor selection criteria. The mentor should work in the same building as the teachers he is assisting or be instructional personnel who is assigned solely as a mentor. A mentor should be assigned a limited number of teachers at any time. Instructional personnel who are not assigned solely as mentors should not be assigned to more than four teachers at any time. Mentors guide teachers in the program through demonstrations, observations, and consultations.

"Postgraduate Professional License" means a five-year, renewable license available to an individual who has qualified for the Collegiate Professional License and who holds an appropriate earned graduate degree from an accredited institution.

"Provisional License" means a nonrenewable license that will be phased out by the 2005-06 school year issued for a period of not to exceed three years to individuals who have been employed by a Virginia educational agency and meet the requirements specified in 8VAC20-21-50 A 4.

"Pupil Personnel Services License" means a five-year, renewable license available to an individual who has earned an appropriate graduate degree from an accredited institution with an

endorsement for guidance counselor, school psychologist, school social worker, ~~or~~ visiting teacher, or vocational evaluator. This license does not require teaching experience.

"Reciprocity" means an Interstate Agreement on Qualification of Educational Personnel agreement between two or more states that will recognize and accept one another's regulations and laws for privileges for mutual benefit. See 8VAC20-21-90 for conditions for teacher licensure by reciprocity.

"Revocation" means the annulment by recalling, repealing, or rescinding a teaching license.

~~"Special Education Conditional License" means a three-year, nonrenewable teaching license issued to an individual employed as a special education teacher in a public school or a nonpublic special education school in Virginia who does not hold the appropriate special education endorsement but meets the criteria specified in 8VAC20-21-50 A 5. This conditional license is not applicable to individuals employed as speech pathologists.~~

"Suspension" means the temporary withdrawal of a teaching license.

"Technical Professional License" means a five-year, renewable license available to a person who has graduated from an accredited high school (or possesses a General Education Development Certificate); has exhibited academic proficiency, technical competency, and occupational experience; and meets the requirements specified in 8VAC20-21-50 A 35.

#### **8VAC20-21-40. Conditions for licensure.**

A. Applicants for licensure must:

1. Be at least 18 years of age;
2. Pay the appropriate fees as determined by the Board of Education and complete the application process;

3. Have earned a baccalaureate degree (with the exception of the Technical Professional License) from an accredited institution of higher education with a Board of Education approved teacher education program. Persons seeking initial licensure who graduate from Virginia institutions of higher education shall, on or after July 1, 2002, only be licensed as instructional personnel by the Board of Education if the endorsement areas offered at such institutions have been assessed by a national accrediting agency or by a state approval process, with final accreditation by the Board of Education; and
4. Possess good moral character (free of conditions outlined in Part VII (8VAC 20-21-660 et seq.) of this chapter).

B. All candidates who hold at least a bachelor's degree and who seek an initial Virginia teaching license must obtain passing scores on a professional teacher's assessment prescribed by the Board of Education. Candidates seeking a Technical Professional License or the Pupil Personnel Services License are not required to take the professional teacher's assessment. Individuals who have completed a minimum of two years of full-time, successful teaching experience in an accredited public or nonpublic school (kindergarten through grade 12) in a state other than Virginia are exempted from the assessment requirement.

C. All candidates seeking an endorsement in early/primary education prek-3, elementary education preK-6, special education, and reading specialist must meet the requirements of a reading instructional assessment prescribed by the Board of Education, effective July 1, 2004. The assessment shall be aligned with the Virginia Standards of Learning and the following five key components of reading instruction: phonics, phonemic awareness, vocabulary, comprehension, and fluency.

#### **8VAC20-21-50. Types of licenses; dating of licenses.**

A. The following types of licenses are available:

1. Alternate Route License. The Alternate Route License is a nonrenewable license type available in the following categories. Individuals must complete the requirements for the regular, five-year license within the validity period of the license:

a. The three-year nonrenewable Alternate Route License with teaching areas (endorsements) in English, reading or language arts, mathematics, science, foreign language, arts, civics and government, economics, history, and geography is available to individuals who:

- (1) are entering through an alternate route to licensure upon the recommendation of a Virginia employing educational agency;
- (2) have a bachelor's degree;
- (3) have met requirements for the endorsement area;
- (4) have demonstrated subject matter competence by passing the state professional teacher assessments as prescribed by the Board of Education; and
- (5) are making satisfactory progress toward full licensure, as prescribed by the Board of Education. Individuals must meet the requirements for a regular five-year, renewable license within the three-year validity of the license.

b. The three-year nonrenewable Alternate Route License issued in endorsement areas other than English, reading or language arts, mathematics, science, foreign language, arts, civics and government, economics, history, and geography is available to individuals who:

- (1) are entering an alternate route to licensure upon the recommendation of a Virginia employing educational agency;

- (2) have a bachelor's degree (with the exception of individuals seeking the Technical Professional License that does not require a bachelor's degree or the professional teacher's assessment requirement);
- (3) have met requirements for the endorsement area; and
- (4) are eligible for licensure but need to complete successfully the professional teacher's assessment prescribed by the Board of Education. Individuals must meet the requirements for a regular five-year, renewable license within the three-year validity of the license.

c. The Alternate Route: Special Education Conditional License is a three-year, nonrenewable teaching license issued to an individual employed as a special education teacher in a public school or a nonpublic special education school in Virginia who does not hold the appropriate special education endorsement. The conditional license is not applicable to individuals employed as speech pathologists. To be issued the Alternate Route: Special Education Conditional License an individual must:

- (1) Be employed by a Virginia public or nonpublic school and have the recommendation of the employing educational agency;
- (2) Hold a baccalaureate degree from an accredited college or university;
- (3) Have an assigned mentor endorsed in special education; and
- (4) Have a planned program of study in the assigned endorsement area, make progress toward meeting the endorsement requirements each of the three years of the license, and have completed course work in the core competencies of foundations for educating students with disabilities and an understanding and application of the legal aspects and regulatory requirements associated with identification, education, and evaluation of students with disabilities. A survey course integrating these competencies would satisfy this requirement. The Special Education

Conditional License shall not be issued without the completion of these prerequisites.

During the three years the Alternate Route: Special Education Conditional License is valid, the individual must complete all requirements for the special education endorsement area, complete professional studies requirements, and meet Virginia's professional teacher's assessment requirement prescribed by the Board of Education.

d. The Alternate Route: Eligibility License is a one-year license dated July 1-June 30. The Alternate Route: Eligibility License is issued upon successful completion of Level I of the career switcher program. This license requires a bachelor's degree from a regionally accredited institution; the completion of requirements for an endorsement in a teaching area as set forth in this chapter, or the equivalent through verifiable experience or academic study; and Virginia qualifying scores on the professional teacher's assessment as prescribed by the Board of Education. If the Alternate Route: Eligibility License expires prior to the individual receiving employment in Virginia, the license holder must reapply for the second Alternate Route: Eligibility License. The intensive program (Level I) must be repeated if the individual has not gained employment prior to the expiration of the second Alternate Route: Eligibility License.

42. Collegiate Professional License. The Collegiate Professional License is a five-year, renewable license available to an individual who has satisfied all requirements for licensure, including an earned undergraduate degree from a regionally accredited institution and the professional teacher's assessment prescribed by the Board of Education.

23. Postgraduate Professional License. The Postgraduate Professional License is a five-year, renewable license available to an individual who has qualified for the Collegiate

Professional License and who holds an appropriate earned graduate degree from an accredited institution.

34. Technical Professional License. The Technical Professional License is a five-year, renewable license available to a person who has graduated from an accredited high school (or possesses a General Education Development Certificate); has exhibited academic proficiency, technical competency, and occupational experience; and has completed nine semester hours of specialized professional studies credit from an accredited college or university. The nine semester hours of professional studies course work must include human growth and development (three semester hours), curriculum and instructional procedures (three semester hours), and applications of instructional technology or foundations of education (three semester hours). The Technical Professional License is issued at the recommendation of an employing educational agency in the areas of ~~vocational education~~ career and technical education, educational technology, and military science. In addition to demonstrating competency in the endorsement area sought, the individual must:

- a. Hold a license issued by the appropriate Virginia board for those program areas requiring a license and a minimum of two years of satisfactory experience at the journeyman level or an equivalent;
- b. Have completed a registered apprenticeship program and two years of satisfactory experience at the journeyman level or an equivalent level in the trade;  
or
- c. Have four years of work experience at the management or supervisory level or equivalent or have a combination of four years of training and work experience at the management or supervisory level or equivalent.

Individuals holding the Technical Professional License who seek the Collegiate Professional or Postgraduate Professional License must meet the professional teacher's assessment requirement.

~~45. Provisional License. The Provisional License, to be phased out by the 2005-06 school year, is a three-year, nonrenewable license, issued for a period not to exceed three years, available to individuals who are employed by a Virginia educational agency and are:~~

- ~~a. Entering the teaching field through the ~~alternative~~ alternate route to licensure upon recommendation of the employing educational agency;~~
- ~~b. Failing to meet an allowable portion of general, professional, or specific endorsement requirements;~~
- ~~c. Seeking the Technical Professional License; or~~
- ~~d. Eligible for licensure but need to complete successfully the professional teacher's assessment prescribed by the Board of Education.~~

~~5. Special Education Conditional License. A Special Education Conditional License is a three year, nonrenewable teaching license issued to an individual employed as a special education teacher in a public school or a nonpublic special education school in Virginia who does not hold the appropriate special education endorsement. The conditional license is not applicable to individuals employed as speech pathologists. To be issued the Special Education Conditional License an individual must:~~

- ~~a. Be employed by a Virginia public or nonpublic school and have the recommendation of the employing educational agency;~~
- ~~b. Hold a baccalaureate degree from an accredited college or university;~~

~~c. Have an assigned mentor endorsed in special education; and~~

~~d. Have a planned program of study in the assigned endorsement area, make progress toward meeting the endorsement requirements each of the three years of the license, and have completed a minimum of six semester hours in the core competencies of characteristics of students with disabilities and legal aspects associated with students with disabilities.~~

~~During the three years the Special Education Conditional License is valid, the individual must complete all requirements for the special education endorsement area, complete professional studies requirements, and meet Virginia's professional teacher's assessment requirement prescribed by the Board of Education.~~

6. Pupil Personnel Services License. The Pupil Personnel Services License is a five-year, renewable license available to an individual who has earned an appropriate graduate degree from an accredited institution with an endorsement for guidance counselor, school psychologist, school social worker, or visiting teacher. This license does not require teaching experience.

7. Division Superintendent License. The Division Superintendent License is a five-year, renewable license available to an individual who has completed an earned master's degree from an accredited institution of higher education and meets the requirements specified in 8VAC 20-21-590. The individual's name must be listed on the Board of Education's list of eligible division superintendents.

~~8. "Eligibility License" means a one-year license dated July 1-June 30. The Eligibility License is issued upon successful completion of Level I of the career switcher program. This license requires a bachelor's degree from a regionally accredited institution; the completion of requirements for an endorsement in a teaching area as set forth in this chapter, or the equivalent through verifiable experience or academic study; and Virginia qualifying scores on the professional teacher's assessment as prescribed by the Board of~~

~~Education. If the Eligibility License expires prior to the individual receiving employment in Virginia, the license holder must reapply for the second Eligibility License. The intensive program (Level I) must be repeated if the individual has not gained employment prior to the expiration of the second Eligibility License.~~

98. Local Eligibility License. The Local Eligibility License, established by the Virginia General Assembly, is a valid, three-year nonrenewable license issued by a local school board to an individual who has met specified criteria set forth in §22.1-299.3 of the Code of Virginia. The Local Eligibility License shall not be issued in the teaching areas of English, reading or language arts, mathematics, science, foreign language, arts, civics and government, economics, history, and geography. The license is not transferable to another division. The Local Eligibility License is a nonrenewable credential and is not reciprocal with other states.

B. All licenses will be effective from July 1 in the school year in which the application is made.

#### **8VAC20-21-60. Additional endorsements.**

A. An individual who holds a teaching license may add an additional endorsement to the license within specified subject areas by passing a rigorous academic subject test prescribed by the Board of Education. This testing option does not apply to individuals who hold a technical professional license, vocational evaluator license, pupil personnel services license, special education conditional license, or division superintendent license.

1. An individual with a Virginia teaching license may add a second endorsement in a related subject area (listed below) by passing a professional teacher's assessment prescribed by the Board of Education. Individuals are limited by the related subjects areas as listed below. For example, an individual who holds an endorsement in English only could add the history and social sciences or foreign language endorsements by examination.

- a. Humanities: English, history and social sciences (or a single endorsement in history, government, economics, or geography), English as a second language, or a foreign language;
- b. Sciences and mathematics: biology, chemistry, Earth science, physics, mathematics algebra I, or mathematics;
- c. Arts: visual arts, music education-vocal/choral, or music education-instrumental;
- d. Middle education: middle school English, middle school mathematics, middle school science, and middle school history and social sciences. [An individual may add additional areas of concentration to a license with a middle education endorsement by examination.]
- e. Career and technical education: agricultural education, business and information technology, family and consumer sciences, marketing education, and technology education;
- f. Health, physical education, and driver education: health, physical education, and driver education [An individual who holds a single endorsement in health, physical education, or driver education can add health and physical education by examination.]
- g. Special education: Individuals with an endorsement in special education can add endorsements in Virginia's core academic areas of English, history and social sciences, science (biology, chemistry, physics, and earth science), and mathematics.

B. An individual who holds an endorsement in special education-emotionally disturbed, special education-learning disabilities, or special education-mental retardation may add an endorsement in special education-emotionally disturbed, special education-learning disabilities, or special education-mental retardation by passing a professional teacher's assessment when prescribed by the Board of Education.

C. One or more endorsements may be added to a license provided specific endorsement requirements have been met. Written requests may be made by the licensed professional and should be directed to the employing educational agency or college or university. If the request is not acted upon by the local educational agency or college or university within 30 days or is disputed, the license holder may make a written request for an additional endorsement directly to the Office of Professional Licensure, Virginia Department of Education. Written requests should be submitted by January 15 to be in effect by July 1 of the same year.

**8VAC20-21-80. ~~Alternative~~ Alternate routes to licensure.**

A. Career switcher ~~alternative~~ alternate route to licensure for career professions. An ~~alternative~~ alternate route is available to career switchers who seek teaching endorsements pre-K through grade 12 with the exception of special education.

1. An individual seeking an Eligibility License must meet the following requirements: an application process; a bachelor's degree from a regionally accredited institution; the completion of requirements for an endorsement in a teaching area as set forth in this chapter, or the equivalent through verifiable experience or academic study; and Virginia qualifying scores on the professional teacher's assessment as prescribed by the Board of Education. The Eligibility License is awarded at the end of Level I preparation. All components of the career switcher ~~alternative~~ alternate route for career professions must be completed by the candidates.

2. At least five years of full-time work experience or its equivalent is required for participation in the program.

3. The level one requirements must be completed during the course of a single year and may be offered through a variety of delivery systems, including distance learning programs. If an employing agency recommends extending the Eligibility License for a second year, the candidate will enter Level III of the program. Career switcher programs must be certified by the Virginia Department of Education.

a. Level I Preparation. Intensive Level I preparation includes a minimum of 180 clock hours of instruction, including field experience. This phase includes, but is not limited to, curriculum and instruction, including technology, reading, and other specific course content relating to the Standards of Learning, differentiation of instruction, classroom/behavior management, and human growth and development.

b. Level II preparation during first year of employment.

(1) Candidate seeks employment in Virginia with the one-year Eligibility License.

(2) Continued Level II preparation during the first year of employment with a minimum of five seminars that expand the intensive preparation requirements instructional categories and topics. The five seminars will include a minimum of 20 cumulative instructional hours. A variety of instructional delivery techniques will be utilized to implement the seminars.

(3) One year of successful, full-time teaching experience in an accredited public or nonpublic school under the newly created one-year Eligibility License. A trained mentor must be assigned to assist the candidate during the first year of employment. Responsibilities of the mentor include, but are not limited to, the following:

- (a) Collaborate with the beginning teacher in the development and implementation of an individualized professional development plan;
- (b) Observe, assess, coach, and provide opportunities for constructive feedback, including strategies for self-reflection;
- (c) Share resources and materials;
- (d) Share best instructional, assessment, and organizational practices; classroom management strategies; and techniques for promoting effective communication; and
- (e) Provide general support and direction regarding school policies and procedures.

(4) Upon completion of Levels I and II of the career switcher ~~alternative~~ alternate route to licensure program and submission of a recommendation from the Virginia educational employing agency, the candidate will be eligible to apply for a five-year, renewable license. Renewal requirements for the regular license will be subject to current regulations of the Board of Education.

c. Level III preparation, if required.

- (1) Post preparation, if required, will be conducted by the Virginia employing educational agency to address the areas where improvement is needed as identified in the candidate's professional improvement plan; and
- (2) Upon completion of Levels I, II, and III of the career switcher ~~alternative~~ alternate route to licensure program and submission of a

recommendation from the Virginia educational employing agency, the candidate will be eligible to receive a five-year renewable license.

4. Verification of program completion will be documented by the certified program provider and the division superintendent or designee.

5. Certified providers implementing a career switcher program may charge a fee for participation in the program.

6. Certification of programs.

a. The Department of Education will certify career switcher ~~alternative~~ alternate route to licensure programs. Certified providers will receive a five-year certification after the first year, then subsequent reviews will be conducted on a five-year cycle, or as deemed necessary.

b. Program providers must document that individuals accepted in the career switcher program meet the following prerequisites:

(1) An application process;

(2) A bachelor's degree from a regionally accredited institution;

(3) At least five years of full-time work experience or its equivalent;

(4) The completion of teaching area requirements for an endorsement in a content area as set forth in this chapter or the equivalent through verifiable experience or academic study; and

(5) Virginia qualifying scores on the professional teacher's assessment as prescribed by the Board of Education.

c. The proposals submitted for certification must include the following:

(1) Purpose, description, and program design.

(a) A statement outlining the purpose of the career switcher ~~alternative~~ alternate route to licensure;

(b) A description of Level I preparation, including how the intensive preparation program will integrate curriculum, instruction, and the field experience;

(c) A description of the Level II preparation during the first year of employment;

(d) Criteria for the selection, preparation, support, assignment, and compensation of instructors and seminar presenters; and

(e) Tasks, methods, and expected outcomes.

(2) Collaboration.

(a) A description of collaborative and cooperative arrangements with educational agencies;

(b) A description of procedures for assigning mentor teachers;

(c) Letters of cooperation, agreement, and commitment describing partnerships; and

(d) A description of strategies for support and placement of participants seeking employment.

(3) Training.

(a) Identification of the credentials and qualifications of the program and seminar instructors; and

(b) A description of the intensive professional preparation and induction year seminar sites and materials.

(4) Project administration and management. A description of how the program will be administered and managed, including the identification of the program manager and fiscal agent.

(5) Maintenance of data and annual reporting to the department of education.

(a) A description of how records will be maintained and a timeline for reporting progress of participants during the program;

(b) The submission of an evaluation summary of the intensive professional preparation program no later than September 30 following Level I preparation;

(c) The submission of an interim report describing the program, including the progress of the participants and an assessment of mentor teacher support no later than March 1 of the induction year;

(d) The submission of a final report by July 15 following the end of Levels I and II preparation. The data must include the following:

(i) The number of participants entering the program;

(ii) The number of participants receiving the five-year, renewable license;

(iii) Attrition rates of candidates;

(iv) Percentage of students requiring an additional year of study;

(v) Candidates' evaluation of the program; and

(vi) School divisions' evaluation of the program.

(6) Evaluation of participants. A description of formative and summative evaluation procedures.

B. An ~~alternative~~ alternate route is available to individuals employed by an educational agency who seek teaching endorsements pre-K through grade 12.

1. An individual seeking a ~~Provisional~~ License through the ~~alternative~~ alternate route must meet the requirements specified in 8VAC 20-21-50 A.1.

2. The professional studies requirements for the appropriate level of endorsement sought must be completed. A Virginia educational agency may submit to the Superintendent of Public Instruction for approval an ~~alternative~~ alternate program to meet the professional studies requirements. The ~~alternative~~ alternate program must include training (seminar, internship, course work, etc.) in human growth and development, curriculum and instructional procedures (including technology), foundations of education, and reading.

3. One year of successful, full-time teaching experience in the appropriate teaching area in an accredited public or nonpublic school must be completed. A fully licensed experienced teacher must be available in the school building to assist the beginning teacher employed through the ~~alternative~~ alternate route.

C. ~~Alternative~~ Alternate programs developed by institutions of higher education (i) recognize the unique strengths of prospective teachers from nontraditional backgrounds and (ii) prepare these

individuals to meet the same standards that are established for others who are granted a ~~Provisional License~~ license through an alternate route.

**8VAC20-21-90. Conditions for licensure for out-of-state candidates by reciprocity.**

A. An individual coming into Virginia from any state may qualify for a Virginia teaching license with comparable endorsement areas if the individual has completed a state-approved teacher training program through a regionally accredited four-year college or university, or if the individual holds a valid out-of-state teaching license which must be in force at the time the application for a Virginia license is made. An individual seeking licensure must establish a file in the Department of Education by submitting a complete application packet, which includes official student transcripts. A professional teacher's assessment prescribed by the Board of Education must be satisfied.

B. An individual coming into Virginia will qualify for a Virginia teaching license with comparable endorsement areas if the individual holds national certification from the National Board for Professional Teaching Standards (NBPTS) or a nationally recognized certification program approved by the Board of Education.

**8VAC20-21-91. Highly qualified teachers.**

A. "Highly qualified" used in reference to any public elementary, middle, or secondary school teacher in the teaching areas of English, reading or language arts, mathematics, science, foreign language, arts, civics and government, economics, history, and geography means that the teacher:

1. holds full state licensure as a teacher, including licensure through alternate routes; and
2. teaches only in the area or areas of endorsement.

B. In addition, a teacher who is entering the profession through an alternate route program may meet the definition of a highly qualified teacher if the participant in the program:

1. is permitted by the state to assume functions as a regular classroom teacher;
2. has a bachelor's degree;
3. has demonstrated subject matter competence by passing the state professional teacher assessments; and
4. is making satisfactory progress toward full licensure, as prescribed by the Board of Education.

C. Teachers hired prior to the 2002-03 school year must meet the following requirements:

Bachelor's degree and one of the following:

1. passed a rigorous state academic subject test in the assigned subjects taught;
2. have an academic major;
3. graduate degree in content area;
4. coursework equivalent to an undergraduate major or advanced certification; or
5. demonstrated competence in all academic subjects taught based on high objective uniform state standards of evaluation set forth in the *Guidelines for Uniform Performance Standards and Evaluation Criteria for Teachers, Administrators, and Superintendents* that:
  - a. provide evaluation and documentation of teacher and administrator performance based on student academic progress on instruments, such as

the Standards of Learning, Advanced Placement, and International Baccalaureate assessments; and

- b. include at least performance evaluations of instructional personnel in the areas of instruction; planning and assessment; safety and learning environment; communication and community relations; and professionalism.

**8VAC20-21-100. Requirements for renewing a license.**

A. The Division Superintendent, Postgraduate Professional, Collegiate Professional, Technical Professional, and Pupil Personnel Services Licenses may be renewed upon the completion of 180 professional development points within a five-year validity period based on an individualized professional development plan that includes ongoing, sustained, and high-quality professional development. Activities for renewal must include activities that:

1. improve and increase teachers' knowledge of the academic subjects the teachers teach;
2. are an integral part of broad schoolwide educational improvement plans;
3. give teachers, principals, and administrators the knowledge and skills to provide students with the opportunity to meet academic content standards and student academic achievement standards;
4. improve classroom management skills;
5. are high quality, sustained, intensive, and classroom-focused in order to have a positive and lasting impact on classroom instruction and the teacher's performance in the classroom and are not one-day or short-term workshops.
6. support the recruiting, hiring, and preparation of highly qualified teachers;
7. advance teacher understanding of effective instructional strategies;
8. are developed with extensive participation of teachers and administrators;

9. providing preparation for teachers and principals in the use of technology so that technology and technology applications are effectively used in the classroom to improve teaching and learning;
10. are evaluated for their impact on increased teacher effectiveness and improved student academic achievement;
11. include instruction in the use of data and assessments to inform and instruct classroom practice;
12. include instruction in ways that instructional personnel may work more effectively with parents.

Virginia public school divisions and public education agencies must report annually to the Department of Education that instructional personnel have completed high quality professional development each year as outlined in the revised Virginia Licensure Renewal Manual.

~~Professional development points can be accrued by the completion of activities from one or more of the following options: college credit, professional conference, peer observation, educational travel, curriculum development, publication of article, publication of book, mentorship/supervision, educational project, and employing educational agency professional development activity.~~

- B. Professional development points may be accrued by the completion of professional development activities to improve and increase instructional personnel's knowledge of the academic subjects the teachers teach or the area assigned from one or more of the following seven options.

1. College Credit: Acceptable course work offers content that provides new information and is offered on-campus, off-campus, or through extension by any regionally accredited two- or four-year college or university. College course work must develop further experiences in subject content taught, teaching strategies, uses of technologies, leadership, and other essential elements in

teaching to high standards and increasing student learning. At least 90 points for each five-year renewal shall be in the content area(s) currently being taught. Instructional personnel must complete course work to improve and increase the knowledge of the academic subjects or endorsement areas in which they are assigned.

2. Curriculum Development: Curriculum development is a group activity in which the license holder contributes to the improvement of the curriculum of a school, a school division, or an education institution in the teaching area assigned. This includes the alignment of curriculum frameworks, instructional materials, and assessments to provide a system with clear expectations of what is to be taught and learned.
3. Publication of Article: The article must contribute to the education profession or to the body of knowledge of the license holder's teaching area or instructional position. Grant reports that present the results of educational research are acceptable provided the license holder had an active role in planning, analyzing, interpreting, demonstrating, disseminating, or evaluating the study or innovation. The article must be published in a recognized professional journal.
4. Publication of Book: Books must be published for purchase and must contribute to the education profession or to the body of knowledge of the license holder's teaching area or instructional position. The published book must increase the field of content knowledge, planning and assessment for evaluating and providing students with feedback that encourages student progress and measures student achievement, instruction, safety and learning environment, communication and community relations working with students, parents, and members of the community to promote broad support for student learning. Points will not be awarded for books self published.

5. Mentorship: Mentoring is the process by which an experienced professional, who has received mentorship training, provides assistance to one or more persons for the purpose of improving their performance. Assistance may involve role modeling, direct instruction, demonstration, observation with feedback, developing of plans, and consultation to promote instructional excellence and increased student achievement. Mentoring may include the supervision of a field experience of a pre-service student teacher or an intern in an approved teacher/principal preparation program, as well as mentoring as part of the induction process for a beginning teacher or a first-year administrator. Individuals serving in this role and submitting documentation for license renewal based on the mentorship option shall receive training as a mentor prior to the assignment and at least once during the five-year renewal cycle.
  
6. Educational Project: Educational projects must be planned, focused projects based on high standards of teaching and learning. Projects must result in a written report or other tangible product. Projects must contribute to the education profession or to the body of knowledge of the license holder's teaching area or instructional position. A project could include participation in new professional responsibilities, such as leading a school improvement initiative.
  
7. Professional Development Activity: Professional development activities must focus on student learning and achievement, schoolwide educational improvement, leadership, subject content, teaching strategies, and use of technologies and other essential elements in teaching to high standards. Activities must be planned, rigorous, systematic, and promote continuous inquiry and reflection. Local employing educational agencies are encouraged to design professional development activities that are conducted in school settings and linked to student learning and achievement.

B. Virginia classroom teachers must complete ~~A~~ a minimum of 90 points (three semester hours in a content area) at the undergraduate (two-year or four-year institution) or graduate level in the license holder's their assigned content teaching area in a five-year renewal cycle. endorsement areas shall be required of license holders without a master's degree and may be satisfied at the undergraduate (two-year or four-year institution) or graduate level. Individuals without a master's degree and not currently employed as instructional personnel also must complete a minimum of 90 points (three semester hours) in a content area. Special education course work designed to assist classroom teachers and other school personnel in working with students with disabilities, a course in gifted education, a course in educational technology, or a course in English as a second language may be completed to satisfy the content course requirement for one cycle of the renewal process. Professional development activities designed to support the Virginia Standards of Learning, Standards of Accreditation, and Assessments may be accepted in lieu of the content course for one renewal cycle. The substance of the activities must clearly support these initiatives and address one or more of the following areas: (i) new content knowledge to implement the Virginia Standards of Learning; (ii) curriculum development initiative designed to translate the standards from standards to classroom objectives; (iii) teaching beginning reading skills including phonemic awareness and the structure of language (phonics); (iv) staff development activities in assessment to assist classroom teachers in the utilization of test results to improve classroom instruction; and (v) professional development designed to implement the technology standards in the schools. Technical Professional License holders without baccalaureate degrees may satisfy the requirement through ~~vocational education career and technical education~~ workshops, vocational education career and technical education institutes, or through undergraduate course work at two-year or four-year institutions.

C. Content area courses are courses at the undergraduate level (two-year or four-year institution) or at the graduate level that will not duplicate previous courses taken in the humanities, history and social sciences, the sciences, mathematics, health and physical education, and the fine arts. These courses are usually available through the college or department of arts and sciences. License holders with elementary education, middle education, special education, or reading

endorsements must satisfy the 90-point requirement through reading course work or content course work in one of the areas listed above. Courses available through the college's or institution's department of education may be used to satisfy the content requirement for those license holders with endorsements in health and physical education, ~~vocational education~~ career and technical education, and library science education.

D. With prior approval of the division superintendent, the 90 points in a content area also may be satisfied through course work taken to obtain a new teaching endorsement or course work taken because of a particular need of a particular teacher.

E. The remaining 90 points may be accrued by activities drawn from one or more of the ~~40~~ seven options described in The Virginia Renewal Manual. Renewal work is designed to provide licensed personnel with opportunities for professional development relative to the grade levels or teaching fields to which they are assigned or for which they seek an added endorsement. Such professional development encompasses (i) responsible remediation of any area of an individual's knowledge or skills that fails to meet the standards of competency and (ii) responsible efforts to increase the individual's knowledge of new developments in his field and to respond to new curricular demands within the person's area of professional competence.

F. The proposed work toward renewal in certain options must be approved in advance by the chief executive officer or designee of the employing educational agency. Persons who are not employed by an educational agency may renew or reinstate their license by submitting to the Office of Professional Licensure, Department of Education, their individualized renewal record and verification of points, including official student transcripts of course work taken at an accredited two-year or four-year college or university.

G. Accrual of professional development points shall be determined by criteria set forth by the Virginia Department of Education.

H. On and after July 1, 2003, persons seeking license renewal as teachers must demonstrate proficiency in the use of educational technology for instruction.

I. Virginia school divisions and nonpublic schools will recommend renewal of licenses using the renewal point system. On or after July 1, 2003, the renewal recommendation must include verification of demonstrated proficiency in the use of educational technology for instruction.

J. Training in instructional methods tailored to promote academic progress and effective preparation for the Standards of Learning tests and end-of-grade assessments is required for licensure renewal on and after July 1, 2004.

K. On and after July 1, 2004, persons seeking licensure renewal as teachers for the first time after such date must complete study in child abuse recognition and intervention in accordance with curriculum guidelines developed by the Board of Education in consultation with the Department of Social Services that are relevant to the specific teacher licensure routes.

**8VAC20-21-110. Early/primary education, elementary education, and middle education endorsements.**

Individuals seeking licensure with endorsements in early/primary education, elementary education, and middle education may meet requirements through the completion of an approved program or, if employed by a Virginia public or nonpublic school, through the ~~alternative~~ alternate route to licensure. Components of the licensure program include a degree the liberal arts and sciences (~~or equivalent~~), professional teacher's assessment requirement prescribed by the Board of Education, specific endorsement requirements, and professional studies requirements. An undergraduate degree in interdisciplinary studies [focusing on the areas of English, mathematics, social studies (history, government, geography, and economics), and science] or in Virginia's core academic areas of English, mathematics, social studies (history, government, geography, and economics), or science is required for endorsements in elementary education prek-6 and middle education 6-8.

**8VAC20-21-120. Professional studies requirements.**

Professional studies requirements for early/primary education, elementary education, and middle education: 18 semester hours.

1. Human growth and development (birth through adolescence): 3 semester hours. Skills in this area shall contribute to an understanding of the physical, social, emotional, and intellectual development of children and the ability to use this understanding in guiding learning experiences. The interaction of children with individual differences -- economic, social, racial, ethnic, religious, physical, and mental -- should be incorporated to include skills contributing to an understanding of developmental disabilities and developmental issues related to but not limited to attention deficit disorders, gifted education including the use of multiple criteria to identify gifted students, substance abuse, child abuse, and family disruptions.

2. Curriculum and instructional procedures: 6 semester hours.

a. Early/primary education preK-3 or elementary education preK-6 curriculum and instructional procedures. Skills in this area shall contribute to an understanding of the principles of learning; the application of skills in discipline-specific methodology; communication processes; classroom management; selection and use of materials, including media and computers; and evaluation of pupil performance. The teaching methods, including for gifted and talented students and those students with disabling conditions, must be appropriate for the level of endorsement (preK-3 or preK-6) and be tailored to promote student academic progress and effective preparation for the Standards of Learning assessments. Study in methods of improving communication between schools and families, ways of increasing family involvement in student learning at home and in school, and the Standards of Learning shall be included. On and after July 1, 2003, demonstrated proficiency in the use of educational technology for instruction shall be included. On and after July 1, 2004, persons seeking initial licensure as teachers and persons seeking licensure renewal as teachers for the

first time after such date complete study in child abuse recognition and intervention in accordance with curriculum guidelines developed by the Board of Education in consultation with the Department of Social Services that are relevant to the specific teacher licensure routes. Pre-student teaching experiences (field experiences) should be evident within these skills.

b. Middle education 6-8 curriculum and instructional procedures. Skills in this area shall contribute to an understanding of the principles of learning; the application of skills in discipline-specific methodology; communication processes, classroom management; selection and use of materials, including media and computers; and evaluation of pupil performance. The teaching methods, including for gifted and talented students and students with disabling conditions, must be appropriate for the middle education endorsement and be tailored to promote student academic progress and effective preparation for the Standards of Learning assessments. Study in methods of improving communication between schools and families, ways of increasing family involvement in student learning at home and in school, and the Standards of Learning shall be included. On and after July 1, 2003, demonstrated proficiency in the use of educational technology for instruction shall be included. On and after July 1, 2004, persons seeking initial licensure as teachers and persons seeking licensure renewal as teachers for the first time after such date complete study in child abuse recognition and intervention in accordance with curriculum guidelines developed by the Board of Education in consultation with the Department of Social Services that are relevant to the specific teacher licensure routes. Pre-student teaching experiences (field experiences) should be evident within these skills.

3. Foundations of education: 3 semester hours. Skills in this area shall be designed to develop an understanding of the historical, philosophical, and sociological foundations underlying the role, development and organization of public education in the United

States. Attention should be given to the legal status of teachers and students, including federal and state laws and regulations, school as an organization/culture, and contemporary issues in education.

4. Reading: 6 semester hours.

- a. Early/primary preK-3 and elementary education preK-6 -- language acquisition and reading: 6 semester hours.

Skills listed for these endorsement areas represent the minimum competencies that a beginning teacher must be able to demonstrate. These skills are not intended to limit the scope of a beginning teacher's program. Additional knowledge and skills that add to a beginning teacher's competencies to deliver instruction and improve student achievement should be included as part of a quality learning experience.

Skills in this area shall be designed to impart a thorough understanding of the complex nature of language acquisition and reading, to include: phonemic awareness, concept of print, an understanding of sound/symbol relationships, explicit phonics, fluency, vocabulary development, and comprehension strategies. ~~instruction, syllables, phonemes, morphemes, decoding skills, word attack skills, and a knowledge of how phonics, syntax, and semantics interact.~~ Additional skills shall include proficiency ~~in a wide variety of comprehension strategies,~~ in writing strategies, as well as the ability to foster appreciation of a variety of literature and independent reading.

- b. Middle education -- language acquisition: 3 semester hours and reading in the content areas: 3 semester hours. Skills in this area shall be designed to impart an understanding of comprehension skills in all content areas, including a repertoire of questioning strategies, summarizing and retelling skills, and strategies in literal,

interpretive, critical, and evaluative comprehension, as well as the ability to foster appreciation of a variety of literature and independent reading.

5. Supervised classroom experience. The student teaching experience should provide for the prospective teacher to be in classrooms full time for a minimum of ~~300~~ 500 clock hours (including pre- and post clinical experiences) with at least ~~half of that time~~ 300 clock hours spent supervised in direct teaching activities (providing direct instruction) at the level of endorsement. One year of successful full-time teaching experience in the endorsement area in any accredited public or nonpublic school may be accepted in lieu of the supervised teaching experience. A fully licensed, experienced teacher must be available in the school building to assist a beginning teacher employed through the ~~alternative~~ alternate route.

### **8VAC20-21-130. Early/primary education preK-3.**

A. The program for early/primary education preK-3 will ensure that the candidate has demonstrated the following competencies:

#### 1. Methods.

- a. Understanding of the knowledge, skills, and processes to support learners in achievement of the Virginia Standards of Learning in English, mathematics, history and social science, science, and computer/technology;
- b. The ability to integrate English language and literacy, mathematics, science, health, history and social sciences, ~~studies~~, art, music, drama, movement, and technology in learning experiences;
- c. The use of differentiated instruction and flexible groupings to meet the needs of learners at different stages of development, abilities, and achievement;

- d. The use of appropriate methods, ~~including direct instruction~~, to help learners develop knowledge and basic skills, sustain intellectual curiosity, and problem solve;
- e. The ability to utilize effective classroom management skills through methods that will build responsibility and self-discipline and maintain a positive learning environment;
- f. The ability to modify and manage learning environments and experiences to meet the individual needs of children, including children with disabilities, gifted children, ~~and~~ children with limited proficiency in English, and children with diverse cultural needs;
- g. The ability to use formal and informal assessments to diagnose needs, plan and modify instruction, and record student progress;
- h. A commitment to professional growth and development through reflection, collaboration, and continuous learning;
- i. The ability to analyze, evaluate, apply, ~~and conduct~~ quantitative and qualitative research; and
- j. The ability to use technology as a tool for teaching, learning, research, and communication.

## 2. Knowledge and skills.

- a. Reading/English. Understanding of the content, knowledge, skills, and processes for teaching the Virginia Standards of Learning for English including: oral language (speaking and listening), reading, and writing, ~~literature, oral language (speaking and listening), and research~~ and how these standards provide the core for teaching English in grades preK-3 (early/primary licensure).

(1) Assessment and diagnostic teaching. The individual must:

- (a) Be proficient in the use of both formal and informal assessment and screening measures for the component of reading: ~~(formal and informal)~~ for language proficiency, concepts of print, phoneme awareness, letter recognition, ~~sound-symbol knowledge, single word recognition,~~ decoding, ~~word-attack skills, word recognition in context,~~ reading fluency, vocabulary, reading levels, and ~~oral and silent reading~~ comprehension; and
- (b) Be proficient in the ability to use diagnostic data to tailor instruction for acceleration, intervention, remediation, and accelerate, and remediate, using flexible skill-level groupings ~~as necessary.~~

(2) Oral communication. The individual must:

- (a) Be proficient in the knowledge, skills, and processes necessary for teaching oral language (~~including~~ speaking and listening);
- (b) Be proficient in developing students' ~~phonemic awareness/~~ phonological ~~association~~ awareness skills;
- (c) Demonstrate effective strategies for facilitating the learning of standard English by speakers of other languages and dialects;
- (d) ~~Demonstrate an understanding of the unique needs of students with language differences and delays; and~~

~~(e)~~ (d) Demonstrate the ability to promote creative thinking and expression, as through storytelling, drama, choral/oral reading, etc.

(3) Reading/literature. The individual must:

~~(a)~~ Demonstrate an understanding of the role of the family in developing literacy;

~~(b)~~ Demonstrate the ability to appreciate the written word and the awareness of the printed language; and writing system;

~~(c)~~ Develop an understanding of the linguistic, sociological, cultural, cognitive, and psychological basis of the reading process;

~~(d)~~ (a) Be proficient in explicit phonics instruction, including an understanding of sound/symbol relationships, syllables, phonemes, morphemes, decoding skills, and word attack skills;

~~(e)~~ Be proficient in the use of the cuing systems of language, including knowledge of how phonics, syntax, and semantics interact as the reader constructs meaning;

~~(f)~~ (b) Be proficient in strategies to increase vocabulary/concept development;

~~(g)~~ (c) Be proficient in the structure of the English language, including an understanding of syntax ~~and vocabulary~~ development;

~~(h)~~ (d) Be proficient in reading comprehension strategies for both fiction and nonfiction text including ~~a repertoire of questioning strategies, understanding the dimensions of word meanings, teaching predicting, retelling,~~ summarizing and retelling skills, and guiding students to make connections beyond the text;

~~(i)~~ Be proficient in the ability to teach strategies in literal, interpretive, critical, and evaluative comprehension;

~~(j)~~ (e) Demonstrate the ability to develop comprehension skills in all content areas;

~~(k)~~ (f) Demonstrate the ability to foster the appreciation of a variety of literature; and

~~(l)~~ (g) Understand the importance of promoting independent reading ~~and reading reflectively~~ by selecting ~~quality literature, including~~ fiction and non-fiction books, at appropriate reading levels.

(4) Writing. The individual must:

(a) Be proficient in the knowledge, skills, and processes necessary for teaching writing, including the domains of composing, written expression, and usage and mechanic and the writing process of planning, drafting, revising, editing, and sharing. ~~grammar, punctuation, spelling, syntax, etc.;~~

(b) Be proficient in systematic spelling instruction, including awareness of the purpose and limitations of "invented spelling," ~~the connection between stages of language~~

~~acquisition and spelling~~, orthographic patterns, and strategies for promoting generalization of spelling study to writing; and

~~(c) Demonstrate the ability to promote creative thinking and expression, as through imaginative writing, etc.~~

(c) Demonstrate the ability to teach the writing process: plan draft, revise, edit, and share in the narrative, descriptive, and explanative modes.

(5) Technology. ~~Research.~~ The individual must demonstrate the ability to guide students in their use of technology for both process and product as they work with reading and writing. ~~and research.~~

b. Mathematics.

(1) Understanding of the mathematics relevant to the content identified in the Virginia Standards of Learning and how the standards provide the foundation for teaching mathematics in grades preK-3. ~~Experiences with practical applications and the use of appropriate technology and manipulatives should be used within the following content:~~

(2) Understanding of a core knowledge base of concepts and procedures within the discipline of mathematics, including the following strands: number sense and numeration; geometry and measurement, statistics and probability; patterns, functions, and algebra.

~~(a) Number systems, their structure, basic operations, and properties;~~

~~(b) Elementary number theory, ratio, proportion and percent;~~

~~(c) Algebra: operations with monomials and polynomials; algebraic fractions; linear and quadratic equations and inequalities; linear systems of equations and inequalities; radicals and exponents; arithmetic and geometric sequences and series; algebraic and trigonometric functions; and transformations among graphical, tabular, and symbolic form of functions;~~

~~(d) Geometry: geometric figures, their properties, relationships, Pythagorean Theorem; deductive and inductive reasoning; perimeter, area, and surface area of 2- and 3-dimensional figures; coordinate and transformational geometry; and constructions;~~

~~(e) Probability and statistics: permutations and combinations; experimental and theoretical probability; prediction; graphical representations including box and whisker plots; measures of central tendency, range, and normal distribution; and~~

~~(f) Computer science: terminology, simple programming, and software applications.~~

~~(2) Understanding of the nature of mathematics and how the study of the discipline helps students appreciate:~~

~~(3)(a) Understanding of ~~T~~the sequential nature of mathematics;~~

~~(4)(b) Understanding of ~~T~~the multiple representations of mathematical concepts and procedures;~~

~~(5)(c) Understanding of and ~~T~~the ability to use the five processes -- ways to reasoning mathematically, solving problems, and communicating~~

mathematics effectively, and making mathematical connections, and using mathematical representations at different levels of ~~formality;~~complexity.

~~(6)(d)~~ Understanding of the contributions of different cultures toward its the development of mathematics, and the role of mathematics in culture and society;

~~(e) The role of mathematics and its applications in culture and society; and~~

~~(f) The way changes in technology have influenced mathematics education.~~

(7) Understanding of the role of technology and the ability to use calculators and computers in the teaching and learning of mathematics.

c. History and social sciences.

(1) Understanding of the knowledge, skills, and processes of history and the social science disciplines as defined in the Virginia Standards of Learning and how the standards provide the necessary foundation for teaching history and social sciences, including in:

(a) History.

(i) The contributions of ancient civilizations to American social and political institutions;

(ii) Major events in Virginia history from 1607 to the present;

(iii) Key individuals, documents, and events in ~~the~~  
~~American revolution~~ United States history; and

(iv) The evolution of American's constitutional republic, its  
ideas, institutions, and practices; .

~~(v) The influence of religious traditions on American~~  
~~heritage and contemporary American society;~~

~~(vi) The changing role of America around the world;~~  
~~relations between domestic affairs and foreign policy;~~  
~~global political and economic interactions; and~~

~~(vii) The origins, effects, aftermath, and significance of the~~  
~~two world wars, the Korean and Vietnam conflicts and the~~  
~~Post Cold War Era.~~

(b) Geography.

(i) The use of maps and other geographic representations,  
tools, and technologies to acquire, process, and report  
information;

(ii) The relationship between human activity and the  
physical environment in the community and the world; and

(iii) Physical processes that shape the surface of the  
eEarth; ~~and~~

~~(iv) How political forces influence the division and control~~  
~~of the eEarth's resources.~~

(c) ~~Civics/economies~~.

(i) The privileges and responsibilities of good citizenship and the importance of the rule of law for the protection of individual rights;

(ii) The process of making laws in the United States and the fundamental ideals and principles of a republican form of government; and

~~(iii) The nature and purposes of constitutions and alternative ways of organizing constitutional governments;~~  
and The understanding that Americans are a people of diverse ethnic origins, customs, and traditions, who are united by the basic principles of a republican form of government and a common identity as Americans.

~~(iv) The structure of the United States economy compared to other economies.~~

(d) Economics

(i) The basic economic principles that underlie the United States market economy;

(ii) The role of the individual and how economic decisions are made in the market place; and

(iii) The role of government in the structure of the United States economy.

(2) Understanding of the nature of history and the social sciences, and how the study of the disciplines assists students in developing critical thinking skills in helping them to understand:

(a) The relationship between past and present;

(b) The use of primary sources such as: artifacts, letters, photographs, and newspapers;

(c) How events in history are shaped both by the ideas and actions of people;

(d) Diverse cultures and shared humanity;

(e) Civic participation in a pluralistic democracy; and

(f) The relationship between history, literature, art, and music.

d. Science.

(1) Understanding of the knowledge, skills, and processes of the Earth, life, and physical sciences as defined in the Virginia Science Standards of Learning and how these standards provide a sound foundation for teaching science in the elementary grades.

(2) Understanding of the nature of science and scientific inquiry, including:

(a) The role of science in explaining and predicting events and phenomena; and

(b) The science skills of data analysis, measurement, observation, prediction, and experimentation.

(3) Understanding of the knowledge, skills, and processes for an active elementary science program, including the ability to:

(a) Design instruction reflecting the goals of the Virginia Science Standards of Learning;

(b) Conduct research projects and experiments in a safe environment;

(c) Organize key science content into meaningful units of instruction;

(d) Adapt instruction to diverse learners using a variety of techniques;

(e) Evaluate instructional materials, instruction, and student achievement; and

(f) Incorporate instructional technology to enhance student performance in science.

(4) Understanding of the content, processes, and skills of the Earth sciences, biology, chemistry, and physics supporting the teaching of elementary school science as defined by the Virginia Science Standards of Learning and equivalent to academic course work in each of these core science areas.

(5) Understanding of the core scientific disciplines to ensure:

(a) The ability to teach the processes and organizing concepts common to the natural and physical sciences; and

(b) Student achievement in science.

(6) Understanding of the contributions and significance of science, including:

(a) Its social and cultural significance;

(b) The relationship of science to technology; and

(c) The historical development of scientific concepts and scientific reasoning.

### 3. Child and family.

a. Knowledge and understanding of human growth and development from birth through adolescence and the link between child development and instruction;

b. The ability to understand children in the context of family, culture, and community;

c. The ability to establish positive and collaborative relationships with all families as partners in teaching and learning;

d. The ability to support families in character development through emphasis on respect, responsibility, and moral behavior; and

e. The ability to support students by cooperatively working with parents and other professionals.

### B. Endorsement requirements.

1. The candidate must have graduated from an approved teacher preparation program in early/primary education preK-3; or

2. The candidate for the early/primary education preK-3 endorsement must have a degree in the liberal arts and sciences (or equivalent) and completed course work which covers the early/primary education preK-3 competencies and fulfills the following 51-semester-hour requirements:

a. English (must include composition, oral communication, and literature): 12 semester hours;

b. Mathematics: 9 semester hours;

c. Science (including a laboratory course): 9 semester hours;

d. History (must include American history and world history): 6 semester hours;

e. Social science (must include geography and economics): 6 semester hours;

f. Arts and humanities: 6 semester hours; and

g. Computer/technology: 3 semester hours.

### **8VAC20-21-140. Elementary education preK-6.**

A. The program in elementary education preK-6 will ensure that the candidate has completed an undergraduate degree in interdisciplinary studies (focusing on the areas of English, mathematics, history and social sciences, and science) or in Virginia's core academic areas of English, mathematics, history and social sciences, or science and demonstrated the following competencies:

1. Methods.

a. Understanding of the needed knowledge, skills, and processes to support learners in achievement of the Virginia Standards of Learning in English, mathematics, history and social science, science, and computer/technology;

- b. The ability to integrate English, language and literacy, mathematics, science, health, history and social sciences, studies, art, music, drama, movement, and technology in learning experiences;
- c. The use of differentiated instruction and flexible groupings to meet the needs of learners at different stages of development, abilities, and achievement;
- d. The use of appropriate methods, ~~including direct instruction~~, to help learners develop knowledge and basic skills, sustain intellectual curiosity, and problem solve;
- e. The ability to utilize effective classroom management skills through methods that will build responsibility and self-discipline and maintain a positive learning environment;
- f. The ability to modify and manage learning environments and experiences to meet the individual needs of children, including children with disabilities, gifted children, and children with limited proficiency in English, and children with diverse cultural needs;
- g. The ability to use formal and informal assessments to diagnose needs, plan and modify instruction, and record student progress;
- h. A commitment to professional growth and development through reflection, collaboration, and continuous learning;
- i. The ability to analyze, evaluate, and apply, ~~conduct~~ quantitative and qualitative research; and
- j. The ability to use technology as a tool for teaching, learning, research, and communication.

2. Knowledge and skills.

a. Reading/English. Understanding of the content, knowledge, skills, and processes for teaching the Virginia Standards of Learning for English including: oral language (speaking and listening), reading, writing, and literature, ~~oral language (speaking and listening), and research~~ and how these standards provide the core for teaching English in grades preK-6 (elementary licensure).

(1) Assessment and diagnostic teaching. The individual must:

(a) Be proficient in the use of both formal and informal assessment and screening measures for the components of reading: (formal and informal) for language proficiency, ~~concepts of print~~, phoneme awareness, letter recognition, ~~sound-symbol knowledge, single word recognition, decoding, word attack skills, word recognition in context, reading fluency, vocabulary, reading level, and oral and silent reading~~ comprehension; and

(b) Be proficient in the ability to use diagnostic data to tailor instruction, for acceleration, intervention, remediation and accelerate, and remediate, using flexible skill-level groupings. ~~as necessary.~~

(2) Oral communication. The individual must:

(a) Be proficient in the knowledge, skills, and processes necessary for teaching oral language (~~including~~ speaking and listening);

(b) Be proficient in developing students' ~~phonemic awareness/ phonological association~~ awareness skills;

(c) Demonstrate effective strategies for facilitating the learning of standard English by speakers of other languages and dialects;

~~(d) Demonstrate an understanding of the unique needs of students with language differences and delays; and~~

~~(e)~~ (d) Demonstrate the ability to promote creative thinking and expression, as through storytelling, drama, choral/oral reading, etc.

(3) Reading/literature. The individual must:

~~(a) Demonstrate an understanding of the role of the family in developing literacy;~~

~~(b) Demonstrate the ability to create appreciation of the written word and the awareness of the printed language and writing system;~~

~~(c) Develop an understanding of the linguistic, sociological, cultural, cognitive, and psychological basis of the reading process;~~

~~(d)~~ (a) Be proficient in explicit phonics instruction, including an understanding of sound/symbol relationships, syllables, phonemes, morphemes, decoding skills, and word attack skills;

~~(e) Be proficient in the use of the cuing systems of language, including knowledge of how phonics, syntax, and semantics interact as the reader constructs meaning;~~

~~(f)~~ (b) Be proficient in strategies to increase vocabulary/concept development;

- ~~(g)~~ (c) Be proficient in the structure of the English language, including an understanding of syntax and semantics; ~~vocabulary development~~;
- ~~(h)~~ (d) Be proficient in reading comprehension strategies for both fiction and nonfiction text, including questioning, predicting, summarizing, clarifying, and associating the unknown with what is known. ~~a repertoire of questioning strategies, understanding the dimensions of word meanings, teaching summarizing and retelling skills, and guiding students to make connections beyond the text; and~~
- ~~(i)~~ Be proficient in the ability to teach strategies in literal, ~~interpretive, critical, and evaluative comprehension~~.
- ~~(j)~~ (e) Demonstrate the ability to develop comprehension skills in all content areas;
- ~~(k)~~ (f) Demonstrate the ability to foster appreciation of a variety of literature; and
- ~~(l)~~ (g) Understand the importance of promoting independent reading ~~and reading reflectively~~ by selecting quality literature, including fiction and non-fiction books, at appropriate reading levels.

(4) Writing. The individual must:

- (a) Be proficient in the knowledge, skills, and processes necessary for teaching writing, including the domains of composing, written expression, and usage and mechanic and the writing

process of planning, drafting, revising, editing, and sharing.  
grammar, punctuation, spelling, syntax, etc.;

(b) Be proficient in systematic spelling instruction, including awareness of the purpose and limitations of "invented spelling," ~~the connection between stages of language acquisition and spelling,~~ orthographic patterns, and strategies for promoting generalization of spelling study to writing; and

~~(e) Demonstrate the ability to promote creative thinking and expression, as through imaginative writing, etc.~~

(c) Demonstrate the ability to teach the writing process: plan draft, revise, edit, and share in the narrative, descriptive, and explanative modes.

(5) Technology. ~~Research.~~ The individual must demonstrate the ability to guide students in their use of technology for both process and product as they work with reading, writing, and research.

b. Mathematics.

(1) Understanding of the mathematics relevant to the content identified in the Virginia Standards of Learning and how the standards provide the foundation for teaching mathematics in grades preK-3. ~~Experiences with practical applications and the use of appropriate technology and manipulatives should be used within the following content:~~

(2) Understanding of a core knowledge base of concepts and procedures within the discipline of mathematics, including the following strands:

number sense and numeration; geometry and measurement, statistics and probability; patterns, functions, and algebra.

~~(a) Number systems, their structure, basic operations, and properties;~~

~~(b) Elementary number theory, ratio, proportion and percent;~~

~~(c) Algebra: operations with monomials and polynomials; algebraic fractions; linear and quadratic equations and inequalities; linear systems of equations and inequalities; radicals and exponents; arithmetic and geometric sequences and series; algebraic and trigonometric functions; and transformations among graphical, tabular, and symbolic form of functions;~~

~~(d) Geometry: geometric figures, their properties, relationships, Pythagorean Theorem; deductive and inductive reasoning; perimeter, area, and surface area of 2- and 3-dimensional figures; coordinate and transformational geometry; and constructions;~~

~~(e) Probability and statistics: permutations and combinations; experimental and theoretical probability; prediction; graphical representations including box and whisker plots; measures of central tendency, range, and normal distribution; and~~

~~(f) Computer science: terminology, simple programming, and software applications.~~

~~(2) Understanding of the nature of mathematics and how the study of the discipline helps students appreciate:~~

~~(3)(a) Understanding of The sequential nature of mathematics;~~

~~(4)(b)~~ Understanding of ~~T~~the multiple representations of mathematical concepts and procedures;

~~(5)(e)~~ Understanding of and ~~T~~the ability to use the five processes --ways ~~to~~ reasoning mathematically, solveing problems, ~~and~~ communicateing mathematics effectively, and making mathematical connections, and using mathematical representations at different levels of ~~formality~~; complexity.

~~(6)(d)~~ Understanding of ~~T~~the contributions of different cultures toward ~~its~~ the development of mathematics, and the role of mathematics in culture and society;

~~(e) The role of mathematics and its applications in culture and society; and~~

~~(f) The way changes in technology have influenced mathematics education.~~

(7) Understanding of the role of technology and the ability to use calculators and computers in the teaching and learning of mathematics.

c. History and social sciences.

(1) Understanding of the knowledge, skills, and processes of history and the social sciences disciplines as defined in the Virginia Standards of Learning and how the standards provide the necessary foundation for teaching history and social sciences, including in:

(a) History

(i) The contributions of ancient civilizations to American social and political institutions;

(ii) Major events in Virginia history from 1607 to the present;

(iii) Key individuals, documents, and events in ~~the American revolution~~ United States history; and

(iv) The evolution of America's constitutional republic, its ideas, institutions, and practices;

~~(v) The influence of religious traditions on American heritage and contemporary American society;~~

~~(vi) The changing role of America around the world; relations between domestic affairs and foreign policy; global political and economic interactions; and~~

~~(vii) The origins, effects, aftermath, and significance of the two world wars, the Korean and Vietnam conflicts, and the Post Cold War Era.~~

(b) Geography.

(i) The use of maps and other geographic representations, tools, and technologies to acquire, process, and report information;

(ii) The relationship between human activity and the physical environment in the community and the world; and

(iii) Physical processes that shape the surface of the eEarth; ~~and~~

~~(iv) How political forces influence the division and control of the eEarth's resources.~~

(c) Civics/economies.

(i) The privileges and responsibilities of good citizenship and the importance of the Rule of Law for the protection of individual rights;

(ii) The process of making laws in the United States and the fundamental ideals and principles of a republican form of government; and

~~(iii) The nature and purposes of constitutions and alternative ways of organizing constitutional governments; and~~ The understanding that Americans are a people of diverse ethnic origins, customs, and traditions, who are united by basic principles of a republican form of government and a common identity as Americans.

~~(iv) The structure of the United States economy compared to other economies.~~

(e) Economics

(i) The basic economic principles that underlie the United States market economy;

(ii) The role of the individual and how economic decisions are made in the market place; and

- (iii) The role of government in the structure of the United States economy.

(2) Understanding of the nature of history and social sciences and how the study of the disciplines assists students in developing critical thinking skills in helping them to understand:

- (a) The relationship between past and present;
- (b) The use of primary sources such as: artifacts, letters, photographs, and newspapers;
- (c) How events in history are shaped both by the ideas and actions of people;
- (d) Diverse cultures and shared humanity;
- (e) Civic participation in a pluralistic democracy; and
- (f) The relationship between history, literature, art, and music.

d. Science.

- (1) Understanding of the knowledge, skills, and processes of the Earth, life, and physical sciences as defined in the Virginia Science Standards of Learning and how these standards provide a sound foundation for teaching science in the elementary grades;
- (2) Understanding of the nature of science and scientific inquiry, including:

(a) The role of science in explaining and predicting events and phenomena; and

(b) The science skills of data analysis, measurement, observation, prediction, and experimentation.

(3) Understanding of the knowledge, skills, and processes for an active elementary science program including the ability to:

(a) Design instruction reflecting the goals of the Virginia Science Standards of Learning;

(b) Conduct research projects and experiments in a safe environment;

(c) Organize key science content into meaningful units of instruction;

(d) Adapt instruction to diverse learners using a variety of techniques;

(e) Evaluate instructional materials, instruction, and student achievement; and

(f) Incorporate instructional technology to enhance student performance in science.

(4) Understanding of the content, processes, and skills of the Earth sciences, biology, chemistry, and physics supporting the teaching of elementary school science as defined by the Virginia Science Standards of Learning and equivalent course work reflecting each of these core science areas.

(5) Understanding of the core scientific disciplines to ensure:

- (a) The ability to teach the processes and organizing concepts common to the natural and physical sciences; and
- (b) Student achievement in science.

(6) Understanding of the contributions and significance of science including:

- (a) Its social and cultural significance;
- (b) The relationship of science to technology; and
- (c) The historical development of scientific concepts and scientific reasoning.

3. Child and family.

- a. Knowledge and understanding of human growth and development from birth through adolescence and the link between child development and instruction;
- b. The ability to understand children in the context of family, culture, and community;
- c. The ability to establish positive and collaborative relationships with all families as partners in teaching and learning;
- d. The ability to support families in character development through emphasis on respect, responsibility, and moral behavior; and
- e. The ability to support students by cooperatively working with parents and other professionals.

B. Endorsement requirements.

1. The candidate shall have completed an undergraduate degree in interdisciplinary studies [focusing on the areas of English, mathematics, social studies (history, government, geography, and economics), and science] or in Virginia's core academic areas of English, mathematics, social studies (history, government, geography, and economics), or science and graduated from an approved teacher preparation program in elementary education preK-6; or
  
2. The candidate for the elementary education preK-6 endorsement must have completed an undergraduate degree in interdisciplinary studies [focusing on the areas of English, mathematics, social studies (history, government, geography, and economics), and science] or in Virginia's core academic areas of English, mathematics, social studies (history, government, geography, and economics), or science ~~and a degree in the liberal arts and sciences (or equivalent)~~ and completed course work which covers the elementary education preK-6 competencies and fulfills the following 60-semester-hour requirements:
  - a. English (must include composition, oral communication, and literature): 12 semester hours;
  
  - b. Mathematics: 12 semester hours;
  
  - c. Science (including a laboratory course): 12 semester hours;
  
  - d. History (must include American history and world history): 9 semester hours;
  
  - e. Social science (must include geography and economics): 6 semester hours;
  
  - f. Arts and humanities: 6 semester hours; and
  
  - g. Computer/technology: 3 semester hours.

**8VAC20-21-150. Middle education 6-8.**

A. The program in middle education 6-8 with ~~two~~ at least one areas of academic preparation concentration will ensure that the candidate has completed an undergraduate degree in interdisciplinary studies [focusing on the areas of English, mathematics, social studies (history, government, geography, and economics), and science] or Virginia's core academic areas of English, mathematics, social studies, or science) and has demonstrated the following competencies.

1. Methods.

- a. Understanding of the needed knowledge, skills, and processes to support learners in achievement of the Virginia Standards of Learning for grades 6-8;
- b. The use of appropriate methods, including direct instruction, to help learners develop knowledge and skills, sustain intellectual curiosity, and solve problems;
- c. The ability to plan and teach collaboratively to facilitate interdisciplinary learning;
- d. The use of differentiated instruction and flexible groupings to meet the needs of preadolescents at different stages of development, abilities, and achievement;
- e. The ability to utilize effective classroom management skills through methods that will build responsibility and self-discipline and maintain a positive learning environment;
- f. The ability to modify and manage learning environments and experiences to meet the individual needs of preadolescents, including children with disabilities, gifted children, and children with limited proficiency in the English language;

- g. The ability to use formal and informal assessments to diagnose needs, plan and modify instruction, and record student progress;
- h. A commitment to professional growth and development through reflection, collaboration, and continuous learning;
- i. The ability to analyze, evaluate, apply, and conduct quantitative and qualitative research;
- j. The ability to use technology as a tool for teaching, learning, research, and communication;
- k. An understanding of how to apply a variety of school organizational structures, schedules, groupings, and classroom formats appropriately for middle level learners; ~~and~~
- l. Skill in promoting the development of all students' abilities for academic achievement and continued learning: ; ~~and~~
- m. The ability to use reading in the content area strategies appropriate to text and student needs.

2. English.

- a. Possession of the skills necessary to teach the writing process, to differentiate among the forms of writing (~~creative, narrative, descriptive, informational, and expository, persuasive, and technical~~), and to use computers and other available technology;
- b. Understanding of and knowledge in grammar, usage, and mechanics and its integration in writing;

- c. Understanding ~~of the theory of linguistics~~ and the nature and development of language and its impact on vocabulary development and spelling;
- d. Understanding of and knowledge in techniques and strategies to enhance reading comprehension and fluency ~~and comprehensive skills~~;
- e. Understanding of and knowledge in the instruction of speaking, and listening, and notetaking; and
- f. Knowledge of ~~major varied~~ works from ~~British, American, world, and ethnic/minority~~ current and classic young adult literature appropriate for English instruction of fiction, non-fiction, and poetry.

### 3. History and social sciences.

- a. Understanding of the knowledge, skills, and processes of history and the social science disciplines as defined by the Virginia History and Social Sciences Standards of Learning and how the standards provide the foundation for teaching history and social sciences, including in:

- (1) United States history.

- (a) The evolution of the American constitutional republic and its ideas, institutions, and practices from the colonial period to the present; the American Revolution, including ideas and principles preserved in significant Virginia and United States historical documents as required by §22.1-201 of the Code of Virginia (Declaration of American Independence, the general principles of the Constitution of the United States, the Virginia Statute of Religious Freedom, the charters of April 10, 1606, May 23, 1609, and March 12, 1612, of The Virginia Company, and the Virginia

Declaration of Rights), and historical challenges to the American political system (i.e., slavery, the Civil War, emancipation, and civil rights);

(b) The influence of religious traditions on the American heritage and on contemporary American society;

(c) The changing role of America around the world; the relationship between domestic affairs and foreign policy; global political and economic interactions;

(d) The influence of immigration on American political, social, and economic life;

(e) Origins, effects, aftermath and significance of the two world wars, the Korean and Vietnam conflicts, and the Post Cold War Era;

(f) Social, political, and economic transformations in American life during the 20th century; and

(g) Tensions between liberty and equality, liberty and order, region and nation, individualism and the common welfare, and between cultural diversity and civic unity.

(2) World history.

(a) The political, philosophical, and cultural legacies of ancient, American, Asian, African, and European civilizations;

- (b) Origins, ideas, and institutions of Judaism, Christianity, Hinduism, Confucianism and Taoism, and Shinto, Buddhist and Islamic religious traditions;
- (c) Medieval society and institutions; relations with Islam; feudalism and the evolution of representative government;
- (d) The social, political, and economic contributions of selected civilizations in Africa, Asia, Europe, and the Americas;
- (e) The culture and ideas of the Renaissance and the Reformation, European exploration, and the origins of capitalism and colonization;
- (f) The cultural ideas of the Enlightenment and the intellectual revolution of the 17th and 18th centuries;
- (g) The sources, results, and influence of the American and French revolutions;
- (h) The social consequences of the Industrial Revolution and its impact on politics and culture;
- (i) The global influence of European ideologies of the 19th and 20th centuries (liberalism, republicanism, social democracy, Marxism, nationalism, Communism, Fascism, and Nazism); and
- (j) The origins, effects, aftermath and significance of the two world wars.

(3) Civics and economics.

- (a) Essential characteristics of limited and unlimited governments;
- (b) Importance of the Rule of Law for the protection of individual rights and the common good;
- (c) Rights and responsibilities of American citizenship;
- (d) Nature and purposes of constitutions and alternative ways of organizing constitutional governments;
- (e) American political culture;
- (f) Values and principles of the American constitutional republic;
- (g) Structures, functions, and powers of local, state, and national governments; and
- (h) The structure and function of the United States market economy as compared with other economies.

b. Understanding of the nature of history and social sciences and how the study of these disciplines helps students go beyond critical thinking skills to help them appreciate:

- (1) The significance of the past to their lives and to society;
- (2) Diverse cultures and shared humanity;
- (3) How things happen, how they change, and how human intervention matters;
- (4) The interplay of change and continuity;

- (5) Historical cause and effect;
- (6) The importance of individuals who have made a difference in history and the significance of personal character to the future of society;
- (7) The relationship among history, geography, civics, and economics; and
- (8) The difference between fact and conjecture, evidence and assertion, and the importance of framing useful questions.

#### 4. Mathematics.

- a. Understanding of the knowledge and skills necessary to teach the Virginia Mathematics Standards of Learning and how curriculum may be organized to teach these standards to diverse learners;
- b. Understanding of a core knowledge base of concepts and procedures within the discipline of mathematics, including the following strands: number ~~systems~~ and number ~~theory~~ sense; computation and estimation; geometry and measurement; statistics and probability; patterns, functions, and algebra;
- c. Understanding of the sequential nature of mathematics and the mathematical structures inherent in the content strands;
- d. Understanding of and the ability to use the ~~four~~ five processes --becoming mathematical problem solvers, reasoning mathematically, communicating mathematically, and making mathematical connections, and representing and describing mathematical ideas, generalizations, and relationships using a variety of methods--at different levels of complexity;

- e. Understanding of the history of mathematics, including the contributions of various individuals and cultures toward the development of mathematics, and the role of mathematics in culture and society;
- f. Understanding of the major current curriculum studies and trends in mathematics;
- g. Understanding of the role of technology and the ability to use graphing utilities and computers in the teaching and learning of mathematics;
- h. Understanding of and the ability to select, adapt, evaluate and use instructional materials and resources, including professional journals and technology;
- i. Understanding of and the ability to use strategies for managing, assessing, and monitoring student learning, including diagnosing student errors; and
- j. Understanding of and the ability to use strategies to teach mathematics to diverse learners.

5. Science.

- a. Understanding of the knowledge, skills, and processes of the Earth, life, and physical sciences as defined in the Virginia Science Standards of Learning and how these provide a sound foundation for teaching science in the middle grades.
- b. Understanding of the nature of science and scientific inquiry, including:
  - (1) Function of research design and experimentation;
  - (2) Role of science in explaining and predicting events and phenomena;and

(3) Science skills of data analysis, measurement, observation, prediction, and experimentation.

c. Understanding of the knowledge, skills, and processes for an active middle school science program, including the ability to:

(1) Design instruction reflecting the goals of the Virginia Science Standards of Learning;

(2) Conduct research projects and experiments;

(3) Implement safety rules/procedures and ensure that students take appropriate safety precautions;

(4) Organize key science content into meaningful units of instruction;

(5) Adapt instruction to diverse learners using a variety of techniques;

(6) Evaluate instructional materials, instruction, and student achievement;  
and

(7) Incorporate instructional technology to enhance student performance in science.

d. Understanding of the content, processes, and skills of the Earth sciences, biology, chemistry, and physics supporting the teaching of middle school science as defined by the Virginia Science Standards of Learning and equivalent to academic course work in each of these core science areas.

e. Understanding of the core scientific disciplines to ensure:

(1) The placement of science in an appropriate interdisciplinary context;

(2) The ability to teach the processes and organize concepts common to the natural and physical sciences; and

(3) Student achievement in science.

f. Understanding of the contributions and significance of science to include:

(1) Its social and cultural significance;

(2) The relationship of science to technology; and

(3) The historical development of scientific concepts and scientific reasoning.

6. Youth and family.

a. Knowledge and understanding of the physical, social, emotional, intellectual, and moral development of youth from preadolescence through early adolescence and the link between adolescent development and instruction;

b. The ability to understand children in the context of family, culture, and community;

c. The ability to establish positive and collaborative relationships with all families as partners in teaching and learning;

d. The ability to support families and youth in character development through emphasis on respect, responsibility, and moral behavior; and

e. The ability to support students by cooperatively working with parents and other professionals.

B. Endorsement requirements.

1. The candidate must have graduated from an approved teacher preparation discipline-specific program in middle education 6-8 with ~~two~~ at least one areas of academic preparation concentration from the areas of English, mathematics, science, and history and social sciences. A candidate who has completed an interdisciplinary degree [focusing on the areas of English, mathematics, social studies (history, government, geography, and economics), and science] may receive the Middle Education 6-8 endorsement in all four academic preparations (concentrations) .
  
2. An applicant seeking the middle education 6-8 endorsement must have earned ~~a degree in the liberal arts and sciences (or equivalent)~~ an undergraduate degree in interdisciplinary studies [focusing on the areas of English, mathematics, social studies (history, government, geography, and economics), and science] or Virginia's core academic areas of English, mathematics, social studies (history, government, geography, and economics), or science]; and completed a minimum of 21 semester hours in ~~two~~ at least one areas of academic preparation (concentration) ~~which that~~ will be listed on the license; and completed minimum requirements for those areas (English, mathematics, science, and history and social sciences) in which the individual is not seeking an area of academic preparation. concentration. A candidate who has completed an interdisciplinary degree [focusing on the areas of English, mathematics, social studies (history, government, geography, and economics), and science] may receive the Middle Education 6-8 endorsement in all four academic preparations (concentrations) . The applicant will be restricted to teaching only in ~~those areas of~~ the area(s) of academic preparation concentration listed on the teaching license.

a. English.

- (1) English concentration (must include course work in language, e.g., history, structure, grammar, literature, advanced composition, and interpersonal communication or speech): 21 semester hours.

(2) Individuals seeking endorsement in middle education 6-8 without an English concentration must have completed 12 semester hours in English.

b. Mathematics.

(1) Mathematics concentration (must include course work in algebra, geometry, probability and statistics, and applications of mathematics): 21 semester hours.

(2) Individuals seeking endorsement in middle education 6-8 without a mathematics concentration must have completed a minimum of 6 semester hours in mathematics for a total of 15 semester hours in mathematics and science.

c. Science.

(1) Science concentration (must include courses in each of the following: biology, chemistry, physics, and Earth and space science; a laboratory course is required in two of the four areas): 21 semester hours.

(2) Individuals seeking endorsement in middle education 6-8 without a science concentration must have completed a minimum of 6 semester hours in science for a total of 15 semester hours in mathematics and science.

d. History/ and social sciences.

(1) History/ and social sciences concentration (must include American history, world history, economics, American government, and geography, ~~international affairs, and current events~~): 21 semester hours.

(2) Individuals seeking endorsement in middle education 6-8 without a history/ and social sciences concentration must have completed a minimum of 6 semester hours in history and a minimum of 6 semester hours in social science for a total of 15 semester hours in history and social sciences.

**8VAC20-21-160. PreK-12 endorsements, special education, secondary grades 6-12 endorsements, and adult education.**

Individuals seeking licensure with preK-12 endorsements, special education, secondary grades 6-12 endorsements, or adult education may meet requirements through the completion of an approved program or, if employed by a Virginia public or nonpublic school, through the ~~alternative~~ alternate route to licensure. Components of the licensure program include a degree in the liberal arts and sciences (or equivalent), professional teacher's assessment requirement prescribed by the Board of Education, specific endorsement requirements, and professional studies requirements.

**8VAC20-21-170. Professional studies requirements.**

Professional studies requirements for adult education, preK-12 endorsements, special education, and secondary grades 6-12 endorsements: 15 semester hours.

1. Human growth and development (birth through adolescence): 3 semester hours. Skills in this area shall contribute to an understanding of the physical, social, emotional, and intellectual development of children and the ability to use this understanding in guiding learning experiences. The interaction of children with individual differences -- economic, social, racial, ethnic, religious, physical, and mental -- should be incorporated to include skills contributing to an understanding of developmental disabilities and developmental issues related to but not limited to attention deficit disorders, gifted education including the use of multiple criteria to identify gifted students, substance abuse, child abuse, and family disruptions.

2. Curriculum and instructional procedures: 6 semester hours. Skills in this area shall contribute to an understanding of the principles of learning; the application of skills in discipline-specific methodology; communication processes; classroom management; selection and use of materials, including media and computers; and evaluation of pupil performance. Teaching methods appropriate for exceptional students, including gifted and talented and those with disabling conditions, and appropriate for the level of endorsement sought shall be included. Teaching methods shall be tailored to promote student academic progress and effective preparation for the Standards of Learning assessments. Methods of improving communication between schools and families and ways of increasing family involvement in student learning at home and in school and the Standards of Learning shall be included. On and after July 1, 2003, demonstrated proficiency in the use of educational technology for instruction shall be included. On and after July 1, 2004, persons seeking initial licensure as teachers and persons seeking licensure renewal as teachers for the first time after such date complete study in child abuse recognition and intervention in accordance with curriculum guidelines developed by the Board of Education in consultation with the Department of Social Services that are relevant to the specific teacher licensure routes. Curriculum and instructional procedures for secondary grades 6-12 endorsements must include middle and secondary education. Pre-student teaching experiences (field experiences) should be evident within these skills. For preK-12, field experiences must be at the elementary, middle, and secondary levels.

3. Foundations of education: 3 semester hours. Skills in this area shall be designed to develop an understanding of the historical, philosophical, and sociological foundations underlying the role, development and organization of public education in the United States. Attention should be given to the legal status of teachers and students, including federal and state laws and regulations, school as an organization/culture, and contemporary issues in education.

4. Reading.

- a. Adult education, preK-12, and secondary grades 6-12 -- reading in the content area: 3 semester hours. Skills in this area shall be designed to impart an understanding of comprehension skills in all content areas, including a repertoire of questioning strategies, summarizing and retelling skills, and strategies in literal, interpretive, critical, and evaluative comprehension, as well as the ability to foster appreciation of a variety of literature and independent reading.
- b. Special Education--Language acquisition and reading: 6 semester hours.

Skills listed for these endorsement areas represent the minimum competencies that a beginning teacher must be able to demonstrate. These skills are not intended to limit the scope of a beginning teacher's program. Additional knowledge and skills that add to a beginning teacher's competencies to deliver instruction and improve student achievement should be included as part of a quality learning experience.

Skills in this area shall be designed to impart a thorough understanding of the complex nature of language acquisition and reading, to include: phonemic awareness, concept of print, an understanding of sound/symbol relationships, explicit phonics, fluency, vocabulary development, and comprehension strategies. ~~instruction, syllables, phonemes, morphemes, decoding skills, word attack skills, and a knowledge of how phonics, syntax, and semantics interact.~~ Additional skills shall include proficiency ~~in a wide variety of comprehension strategies, in writing strategies,~~ as well as the ability to foster appreciation of a variety of literature and independent reading.

5. Supervised classroom experience. The student teaching experience should provide for the prospective teacher to be in classrooms full time for a minimum of ~~300~~ 500 clock hours (including pre- and post clinical experiences) with at least ~~half of that time~~ 300 clock hours spent supervised in direct teaching activities (providing direct instruction) in

the endorsement area sought. If a preK-12 endorsement is sought, teaching activities must be at the elementary and middle or secondary levels. Individuals seeking the endorsement in library media must complete the supervised experience in a school library media setting. Individuals seeking an endorsement in an area of special education must complete the supervised classroom experience requirement in the area of special education for which the endorsement is sought. One year of successful full-time teaching experience in the endorsement area in any accredited public or nonpublic school may be accepted in lieu of the supervised teaching experience. A fully licensed, experienced teacher must be available in the school building to assist a beginning teacher employed through the ~~alternative~~ alternate route.

**8VAC20-21-200. ~~Art preK-12.~~**

~~A. The program in art preK-12 will ensure that the candidate has demonstrated the following competencies:~~

- ~~1. Understanding of the knowledge, skills, and processes of the art discipline as defined in the Virginia Standards of Learning, and how they provide a necessary foundation for teaching art;~~
- ~~2. Understanding of the knowledge, skills, and processes for teaching art appropriate to the developmental levels of students in preK-12 including the following areas:~~
  - ~~a. Knowledge and experience in planning, developing, administering, and evaluating a program of art education;~~
  - ~~b. Two-dimensional media and concepts: basic and complex techniques and concepts in two-dimensional design, drawing, painting, printmaking, computer graphics and other electronic imagery;~~

- ~~e. Three-dimensional media and concepts: basic and complex techniques and concepts in three-dimensional design, sculpture, ceramics, fiber arts, and crafts;~~
- ~~d. History of art, including aesthetics and criticism;~~
- ~~e. The relationship of art and culture and the influence of art on past and present cultures;~~
- ~~f. Related areas of art, such as architecture, dance, music, theater, photography, and other expressive arts;~~
- ~~g. Knowledge and understanding of technological and artistic copyright laws;~~
- ~~h. Knowledge and understanding of safety, including use of toxic art material in various aspects of studio and classroom work; and~~
- ~~i. Observation and student teaching experiences at the elementary, middle and secondary levels.~~

~~3. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements. The candidate must have:~~

- ~~1. Graduated from an approved teacher preparation program in art; or~~
- ~~2. Completed a major in art or 36 semester hours in art with course distribution in the following areas:~~
  - ~~a. Two-dimensional media: 12 semester hours;~~
  - ~~b. Three-dimensional media: 12 semester hours;~~

- ~~e. History of art, aesthetics, and criticism: 9 semester hours; and~~
- ~~d. Related areas of art: 3 semester hours.~~

**8VAC20-21-201. Career and technical education--agricultural education.**

A. The program in agricultural education will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the importance and relationship of agriculture to the economy of the community, the state, and the nation, including:

- a. An awareness and appreciation for agriculture;
- b. Knowledge of the occupational opportunities in agriculture and related fields;
- c. Knowledge of the U.S. food and fiber system; and
- d. Knowledge of the contributions of agriculture to the economy of the state and nation.

2. Understanding of the knowledge, skills, and processes involved in plant and soil sciences, including:

- a. Production, use, and marketing of row crops, specialty crops, forage crops, fruits, small grains, vegetables, and cereal crops; and
- b. Soil and water management.

3. Understanding of the knowledge, skills, and processes involved in the production, management, and marketing of animals, including:

a. Production of cattle, swine, poultry, dairy cows, sheep, aquaculture species, goats, and horses; and

b. Care and management of small companion animals.

4. Understanding of the knowledge, skills, and processes involved in agricultural mechanics, including:

a. Safe operation, repair, and maintenance of equipment, tools, and machinery used in agriculture;

b. Setting up and adjusting agriculture machinery;

c. Basic knowledge of a set of hand tools, measuring devices, and testing equipment used in agriculture;

d. Basic knowledge of energy transfer systems used in agriculture; and

e. Properties of metals used in tools and equipment.

5. Understanding of agricultural economics, including the various markets, international trade, government policies, and the operation and management of various agricultural businesses.

6. Understanding of the knowledge, skills, and processes involved in natural resources, including:

a. Care, management, and conservation of soil, air, water, and wildlife; and

b. Production and management of the forest.

7. Understanding of the importance and processes necessary for community resource development, including:

- a. Fundamentals of the community development process;
- b. Knowledge of public and private programs and resources available;
- c. Knowledge of the promotion of community development; and
- d. Knowledge of civic organizations and their purposes.

8. Knowledge of and the ability to teach:

- a. How the biological, physical, and applied sciences relate to practical solutions of agricultural problems;
- b. Leadership development skills; and
- c. Agricultural competencies needed by secondary students to be successful in continuing their education and entering a related occupation.

9. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization (FFA) and implement the organization's activities as an integral part of instruction.

10. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in agricultural education; or
2. Completed a major in agricultural education or 39 semester hours of course work in agriculture, including at least 3 semester hours in each of the following:
  - a. Plant science;

- b. Animal science;
- c. Agricultural mechanics;
- d. Agricultural economics and management;
- e. Forestry/wildlife management;
- f. Horticulture; and
- g. Technology/microcomputer applications.

C. Technical Professional License. An endorsement in horticulture or agricultural machinery may be granted to individuals who have:

- 1. Been recommended by an employing Virginia educational agency;
- 2. Completed four years of occupational experience in the area sought; and
- 3. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in career and technical education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours).

**8VAC20-21-202. Career and technical education—business and information technology.**

A. The program in business and information technology will ensure that the candidate has demonstrated the following competencies:

- 1. Knowledge, skills, and principles of manual and automated accounting, including:
  - a. Accounting concepts, terminology, and applications;
  - b. Accounting systems; and

c. The basic accounting cycle of source documents, verifications, analyzing, recording, posting, trial balances, and preparing financial statements.

2. Knowledge and skills in economics necessary to:

a. Communicate basic economic principles as applied to the American economic system; and

b. Apply basic economic principles to consumerism.

3. Knowledge and skills in the foundations of business selected from the following areas:

a. Business law.

(1) Ability to recognize the legal requirements affecting business organization; and

(2) Ability to apply legal principles to business situations;

b. Business principles.

(1) Ability to identify, explain, and apply contemporary business principles; and

(2) Ability to identify and explain the advantages and disadvantages of various business organizational structures; and

(3) Knowledgeable in the foundations of international business, the global business environment, international business communications, and global business ethics;

c. Management. Understanding and analyzing of basic management concepts functions, tools, theories, and leadership styles to explore and solve problems in business functions organizations, economics, international business, and human relations issues;

d. Marketing and Entrepreneurship.

(1) Understanding of basic marketing concepts in sales techniques, advertising, display, buying, wholesale/retail, distribution, service occupations, market analysis, warehousing, and inventory control; and

(2) Understanding of the unique characteristics of an entrepreneur and the knowledge and skills necessary for an entrepreneurial venture;

e. Finance.

(1) Knowledgeable about and skilled in the areas of money management, recordkeeping, and banking needed for sound financial decision making; and

(2) Understanding of the basic concepts of economics, insurance, credit, and other related topics; ~~or~~.

4. Knowledge and skills in all of the following communications and information technologies:

a. Communications.

(1) Ability to communicate in a clear, courteous, concise, and correct manner for personal and professional purposes through the

foundations of listening, writing, reading, speaking, non-verbal cues, and following written/oral directions; and

(2) Ability to use information systems and technology to expedite and enhance the effectiveness of communications and telecommunications; and

(3) Ability to gather, evaluate, use, and cite information from information technology sources.

b. Impact of technology on society. Knowledge to assess the impact of information technology on society.

c. Computer architecture. Ability to describe current and emerging computer architecture; configure, install, and upgrade hardware; and diagnose and repair hardware problems.

d. Operating systems, environments, and utilities. Ability to identify, evaluate, select, install, use, upgrade, customize, and diagnose and solve problems with various types of operating systems, environments, and utilities.

e. Application software (e.g., word processing, database, spreadsheet, graphics, Web design, desktop/presentation/multimedia and imaging, and emerging technologies).

(1) Ability to identify, evaluate, select, install, use, upgrade, and customize application software; and

(2) Ability to diagnose and solve problems resulting from an application software's installation and use.

- f. Input technologies. Ability to use input technologies (e.g, touch keyboarding\*, speech recognition, handwriting recognition, Personal Digital Assistants–PDAs- and other hand-held devices, touch screen or mouse, scanning, and other emerging input technologies) to enter, manipulate, and format text and data.  
\*Touch keyboarding is required.
- g. Database management systems. Ability to use, plan, develop, and maintain database management systems.
- h. Programming and application development. Ability to help students design, develop, test, and implement programs that solve business problems.
- i. Networking and communications infrastructures.
  - (1) Facilitate students’ development in the skills to design, deploy, and administer networks and communications systems; and
  - (2) Facilitate students’ ability to use, evaluate, and deploy communications and networking applications.
- j. Information management.
  - (1) Ability to plan the selection and acquisition of information technologies (hardware and software); and

- (2) Ability to instruct students in the development of technical and interpersonal skills and knowledge to support the user community; and
- (3) Ability to describe, analyze, develop, and follow policies for managing privacy and ethical issues in organizations and in a technology-based society.

5. Career Development

- a. Experience in a supervised career in business and information technology through cooperative education, internship, shadowing, mentorship, and/or work experience; and
- b. Ability to provide instruction in self-awareness as it relates to career exploration and development, career research, workplace expectation, and career planning.

6. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction.

7. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

8. Knowledge and skills necessary to apply basic mathematical operations to solve business problems.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in business and information technology; or
2. Completed 39 hours of course work in business and information technology, including:
  - a. Accounting: 6 semester hours;
  - b. Economics: 3 semester hours;
  - c. Business law, business principles, management, marketing, or finance: 9 semester hours;
  - d. Communications: 3 semester hours;
  - e. Information systems and technology to include computer software applications, information technology fundamentals, database management, programming, and networking: 12 semester hours;
  - f. Input technologies to include touch keyboarding (required), speech recognition, handwriting recognition, Personal Digital Assistants (PDAs) and other held-held devices, touch screen or mouse, scanning, and other emerging input technologies: 3 semester hours; and
  - g. Supervised business experience: 3 semester hours.

**8VAC20-21-203. Career and technical education - family and consumer sciences.**

A. The program in family and consumer sciences will ensure that the candidate has demonstrated the following competencies:

1. Knowledge of the developmental processes of childhood, preadolescence, adolescence, and adulthood/aging and in creating and maintaining an environment in which family members develop and interact as individuals and as members of a group;

2. Knowledge of the decision-making processes related to housing, furnishings, and equipment for individuals and families with attention given to special needs and the diversity of individuals;
3. The ability to plan, purchase, and prepare food choices that promote nutrition and wellness;
4. Knowledge of the management of resources to achieve individual and family goals at different stages of the life span;
5. Knowledge of the sociological, psychological, and physiological aspects of clothing and textiles for individuals and families;
6. Knowledge of the management of families, work, and their inter-relationships;
7. Knowledge of occupational skill development and career planning;
8. Knowledge of the use of critical science and creative skills to address problems in diverse family, community, and work environments;
9. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction;
10. The ability to plan, develop, teach, supervise, and evaluate programs in occupational programs at the secondary, postsecondary, and adult levels;
11. The ability to organize and implement Future Homemakers of America/Home Economics Related Occupations (FHA/HERO) programs as an integral part of classroom instruction; and

12. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in family and consumer sciences; or

2. Completed 39 semester hours of course work distributed in the following areas:

a. Development of individual and family: 9 semester hours;

b. Management, family finance, and consumer economics: 6 semester hours;

c. Food and nutrition: 6 semester hours;

d. Housing, home furnishing, and equipment: 6 semester hours;

e. Clothing and textiles: 3 semester hours;

f. Health: 3 semester hours;

g. Occupational program management: 3 semester hours; and

h. Documented work experience related to family and consumer sciences: 3 semester hours.

3. Technical Professional License. An endorsement in a specialized family and consumer sciences area, such as child care occupations, consumer services, family and human services, fashion design occupations, food occupations, hospitality occupations, interior design occupations, and home furnishings occupations, and home and institutional services, may be granted to individuals who have:

- a. Been recommended by an employing Virginia educational agency;
- b. A license or are certified as a professional practitioner in the area in which one is to be teaching, if applicable, or demonstrate competency in the specialized area of family and consumer sciences;
- c. In the area of occupational experience, evidence of at least two years or 4,000 clock hours of satisfactory occupational experience within the past five years in the teaching specialty for which they are seeking endorsement.
- d. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in career and technical education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours).

**8VAC20-21-204. Career and technical education –health and medical sciences.**

A. The program in health and medical sciences will ensure that the candidate has demonstrated the following competencies:

1. Knowledge of teaching methods.
  - a. Instructional planning--ability to determine the needs and interests of students;
  - b. Organizing instruction--ability to prepare teacher-made instructional materials for clinical laboratory experience;
  - c. Instructional execution--ability to use techniques for simulating patient care and demonstrating manipulative skills;
  - d. Application of technology in the classroom; and

e. Instructional evaluation--ability to determine grades for students in classroom and clinical settings.

2. Knowledge of program management.

a. Planning--ability to organize an occupational advisory committee;

b. Curriculum development--ability to keep informed of current curriculum content and patient care practices;

c. Planning and organizing teaching/occupational laboratory for laboratory simulations/demonstrations;

d. Understanding of the process for issuing credentials for health workers;

e. Understanding of the health care industry; and

f. Evaluation--ability to conduct a student follow-up study.

3. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction.

4. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements.

1. The candidate must have:

a. Graduated from an approved program of study for the preparation of health care professionals;

b. A license or be certified as a professional practitioner in the area in which one is to be teaching; and

c. Completed two years of occupational experience in an area related to the area to be taught.

2. Technical Professional License. An endorsement in a specialized health occupations area may be granted to individuals who have:

a. Been recommended by an employing Virginia educational agency;

b. A license or be certified as a professional practitioner in the area in which one is to be teaching;

c. Completed two years of occupational experience in the area sought;

d. Completed a health occupations' certificate or associate degree program; and

e. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in career and technical education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours).

**8VAC20-21-205. Career and technical education--industrial cooperative training (add-on endorsement).**

A. The program in industrial cooperative training (ICT) will ensure that the candidate has demonstrated the following competencies:

1. Understanding of industrial education and its role in the development of technically competent, socially responsible, and culturally sensitive individuals with potential for leadership in skilled technical work and professional studies;

2. Understanding of and the ability to relate experiences designed to develop skills in the interpretation and implementation of industrial education philosophy in accordance with changing demand;
3. The knowledge and experience of systematically planning, executing, and evaluating individual and group instruction;
4. Understanding of the competencies necessary for effective organization and management of laboratory instruction;
5. Understanding of the competencies necessary for making physical, social, and emotional adjustments in multicultural student-teacher relationships;
6. Understanding of the competencies necessary for developing and utilizing systematic methods and instruments for appraising and recording student progress in the vocational classroom;
7. Understanding of the ability to provide technical work experience through cooperative education or provide a method of evaluating previous occupational experience commensurate with the minimum required standard;
8. Understanding of the competencies necessary to assist students in job placement and in bridging the gap between education and work;
9. Understanding of the awareness of the human relations factor in industry with emphasis on the area of cooperation among labor, management, and the schools;
10. Understanding of the teacher's role in the school and community;
11. Understanding of the content, skills, and techniques necessary to teach a particular trade area;

12. Understanding of the competencies necessary to organize and manage an effective student organization; and

13. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements.

1. The candidate must have graduated from an approved teacher preparation program in industrial cooperative training (ICT); or

2. The candidate must have:

a. A Virginia Collegiate Professional or Postgraduate Professional License;

b. Completed two years or more of successful, full-time teaching experience;

c. Completed 15 semester hours in trade and industrial education course work distributed in the following areas:

(1) Administration and coordination of ICT or equivalent cooperative education course;

(2) Methods and development of competency-based related instructional materials for ICT;

(3) Vocational student organizations;

(4) Implementation of a competency-based (CBE) curriculum; and

(5) Development and utilization of directly related occupational materials;  
and

d. In the area of occupational experience, evidence of a minimum of two years or 4,000 hours of acceptable employment in a trade, technical, or industrial education subject area.

**8VAC20-21-206. Career and technical education --marketing education.**

A. The program in marketing education will ensure that the candidate has demonstrated the following competencies:

1. Knowledge of marketing, merchandising, marketing mathematics, communication theory and techniques, advertising and sales promotion, personal selling, and management through a variety of educational and work experiences;
2. Knowledge of planning, developing, and administering a comprehensive program of marketing education for high school students and adults;
3. Knowledge of organizing and using a variety of instructional methods and techniques for teaching youths and adults;
4. Knowledge of conducting learning programs that include a variety of career objectives and recognize and respond to individual differences in students;
5. Knowledge of assisting learners of different abilities in developing skills needed to qualify for further education and employment;
6. Knowledge of acquiring knowledge of career requirements and opportunities in marketing, merchandising, and management;
7. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction;

8. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing; and

9. Knowledge of utilizing current technological applications as these relate to marketing functions.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in marketing education; or

2. Completed the following educational and occupational requirements:

a. Thirty semester hours of course work distributed in the following areas: marketing process and management, economics, merchandising and operations, advertising/sales promotion, personal selling, marketing math, communication theory and techniques, business ethics, human resources/training and development, international business/marketing, ~~or~~ and marketing technology; and

b. A minimum of 1,000 clock hours in a marketing occupation within the last five years, 500 hours of which must have been university-supervised or the applicant whose baccalaureate degree is in an area other than marketing education must have completed a minimum of 4,000 clock-hours of occupational experience within the last five years in one or more marketing occupations.

C. Technical Professional License. An endorsement in a specialized marketing area, such as apparel and accessories, financial services, hotel/motel operations, international marketing, real estate, or restaurant, may be granted to individuals who have:

1. Been recommended by an employing Virginia educational agency;

2. A license or are certified as a professional practitioner in the area in which one is to be teaching;

3. Completed a registered apprenticeship program and two years of satisfactory experience at the journeyman level or an equivalent level in the trade;
4. Completed four years of work experience at the management or supervisory level or equivalent or have a combination of four years of training and work experience at the management or supervisory level or equivalent; and
5. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in career and technical education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours).

**8VAC20-21-207. Career and technical education--technology education.**

A. The program in technology education will ensure that the candidate has demonstrated the following competencies:

1. Understanding and utilization of technology, including the human activities of:
  - a. Designing and developing technological systems;
  - b. Determining and controlling the behavior of technological systems;
  - c. Utilizing technological systems; and
  - d. Assessing the impacts and consequences of technological systems.
2. Understanding of technological knowledge, including:
  - a. The nature and evolution of technology;
  - b. Technological concepts and principles; and

c. Technological resources, impacts, consequences, and linkages with other fields.

3. Understanding and utilization of the major systems of technology, including the:

a. Synthesis of the processes for creating, encoding, transmitting, receiving, decoding, storage, and retrieval of information using communication systems in a global information society;

b. Application of the principles and processes characteristic of contemporary and future production systems, including the research, engineering design and testing, planning, organization, resources, and distribution; and

c. Integration and organization of transportation systems, including land, sea, air, and space as a means of transporting people, goods, and services in a global economy.

4. Understanding and utilization of the knowledge, skills, and processes for teaching in a laboratory environment, including:

a. Laboratory safety rules, regulations, processes and procedures;

b. Ability to organize technological content into effective instructional units;

c. Ability to deliver instruction to diverse learners;

d. Ability to evaluate student achievement, curriculum materials and instructional processes;

e. Ability to incorporate new and emerging instructional technologies to enhance student performance; and

f. Understanding the concepts and procedures for developing a learner's technological literacy.

5. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction;

6. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in technology education;

2. Completed a major in technology education or 39 semester hours in technology education distributed in the following areas:

a. Technology and culture (experiences shall include the historical development of technology and its present and future impact on the individual, society and the environment): 6 semester hours;

b. Technological foundations (experiences shall include technical design and illustration, energy and power, electronics, and materials science): 12 semester hours;

c. Technological processes (experiences shall include technical design, material processing, manufacturing, construction, and graphic communication): 12 semester hours; and

d. Technological systems (experiences shall include communication, production, and transportation systems): 9 semester hours; or

3. Earned a baccalaureate degree from an accredited college or university with a major in one of the following fields of study: architecture, design, engineering, or physics; and completed 18 semester hours of technology education content course work, including at

least 3 semester hours in each of the following areas: technology and culture, technological foundations, technological processes, and technological systems.

**8VAC20-21-208. Career and technical education--trade and industrial education.**

A. The program in trade and industrial education will ensure that the candidate has demonstrated the following competencies:

1. Understanding of industrial education and its role in the development of technically competent, socially responsible, and culturally sensitive individuals with potential for leadership in skilled technical work and/or professional studies;

2. Understanding of and the ability to relate experiences designed to develop skills in the interpretation and implementation of industrial education philosophy in accordance with changing demand;

3. The knowledge and experience of systematically planning, executing, and evaluating individual and group instruction;

4. Knowledge of the competencies necessary for effective organization and management of laboratory instruction;

5. Knowledge of the competencies necessary for making physical, social, and emotional adjustments in multicultural student-teacher relationships;

6. Knowledge of the competencies necessary for developing and utilizing systematic methods and instruments for appraising and recording student progress in the vocational classroom;

7. Knowledge of the ability to provide technical work experience through cooperative education or provide a method of evaluating previous occupational experience commensurate with the minimum required standard;

8. Knowledge of the competencies necessary to assist students in job placement and in otherwise bridging the gap between education and work;

9. Understanding of the awareness of the human relations factor in industry, with emphasis on the area of cooperation among labor, management, and the schools;

10. Knowledge of the teacher's role in the school and community;

11. Understanding of the content, skills, and techniques necessary to teach a particular trade area;

12. Knowledge of the competencies necessary to organize and manage an effective student organization; and

13. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements.

1. The candidate must have graduated from an approved teacher preparation program in the trade and industrial education program subject area for which the candidate is seeking endorsement; or

2. A candidate who has graduated from an approved teacher preparation program that is not in the trade and industrial education program subject area for which the candidate is seeking endorsement must have:

a. A current state licensure or industry certification based upon the prescribed standard or examination, if applicable; and

b. Evidence of at least two years or 4,000 clock hours of satisfactory occupational experience within the past five years in the teaching specialty for which they are

seeking endorsement. A candidate whose occupational experience has not been within the last five years must participate in a supervised technical update related to the teaching specialty or area of endorsement or complete a supervised internship of work experience of not less than six weeks related to the area of endorsement or teaching specialty.

3. Technical Professional License. An endorsement in a specialized trade and industrial education area will be granted to individuals who have:

a. Been recommended by an employing Virginia educational agency;

b. A license or are certified as a professional practitioner in the area in which one is to be teaching, if applicable, or can demonstrate competency in the area of trade and industrial education one is to be teaching;

c. Evidence of at least two years or 4,000 clock hours of satisfactory occupational experience within the past five years in the teaching specialty for which they are seeking endorsement. Candidates whose occupational experience has not been within the last five years must participate in a supervised technical update related to the teaching specialty or area of endorsement or complete a supervised internship of work experience of not less than six weeks related to the area of endorsement or teaching specialty; and

d. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in career and technical education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours).

C. Add-on endorsement requirements. A candidate must:

1. Hold a Collegiate Professional or Postgraduate Professional License with a teaching endorsement;
2. Demonstrate competency in the trade or technology to be taught;
3. Hold licensure for the trade or industrial area for which endorsement is sought based upon the prescribed standard or examination;
4. Have completed two years or 4,000 clock hours of satisfactory, full-time employment experience at the journeyman level or an equivalent level in the occupation within the last five years. Candidates whose occupational experience has not been within the last five years must participate in a supervised technical update related to the teaching specialty or area of endorsement or complete a supervised internship of work experience of not less than six weeks related to the area of endorsement or teaching specialty; and
5. Have completed 3 semester hours in curriculum and instructional procedures specific to vocational industrial education.

**8VAC20-21-209. Career and technical education --vocational special needs (add-on endorsement).**

A. The program in vocational special needs (add-on endorsement) will ensure that the candidate has demonstrated the following competencies:

1. Understanding of vocational special needs programs and services; characteristics of students who are disadvantaged, disabled, and gifted; and program development, implementation, and evaluation.
2. Understanding of instructional methods and resources in career-vocational, community-based, and transition programs for targeted populations in career and technical education, including:

- a. Use of learning and teaching styles to plan and deliver instruction;
- b. Use of vocational assessment results to plan individual instruction strategies;
- c. Ability to plan and manage a competency-based education system;
- d. Ability to adapt curriculum materials to meet special student needs;
- e. Use of a variety of classroom management techniques to develop an enhanced learning environment;
- f. Use of different processes to improve collaboration with colleagues, parents, and the community; and
- g. Ability to plan learning experiences that prepare individuals for transition to more advanced education and career development options.

3. Understanding of the planning, delivery, and management of work-based education programs such as community surveying, cooperative education, simulation, directed observation, shadowing, mentoring, and internship.

4. Understanding of strategies for enabling students to learn all aspects of particular industries--planning, management, finances, technical and production skills, labor and community issues, health and safety, environmental issues, and the technology associated with the specific industry.

5. Understanding of career/life planning procedures, transitioning processes and procedures, and career-search techniques.

6. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements.

1. The candidate must have graduated from an approved teacher preparation program in vocational special needs; or

2. The candidate must have:

a. A baccalaureate degree with an endorsement in one area of career and technical education or special education preK-12;

b. Twelve semester hours distributed in the following areas:

(1) Overview of vocational special needs programs and services: 3 semester hours;

(2) Instructional methods, curriculum and resources: 3 semester hours;

(3) Career/life planning, transitioning, occupational information, and delivery of cooperative education programs: 3 semester hours; and

(4) Purposes and practices and characteristics of special populations: 3 semester hours; and

c. Evidence of at least two years or 4,000 clock hours of satisfactory occupational experience in business or industry, or both, or complete a work experience internship under the supervision of an institution of higher education.

**8VAC20-21-220. Dance arts prek-12.**

A. The program in dance arts will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of the dance arts discipline as defined in the Virginia Standards of Learning and how they provide a foundation needed to teach dance arts;

2. Understanding of the knowledge, skills, and processes for teaching dance arts to meet the developmental levels of students in preK-12, including the following:

a. Knowledge of and experience in planning, developing, administering, and evaluating a program of dance arts education;

b. Knowledge and understanding for teaching dance arts, including: performance and production, cultural context and dance history, judgment and criticism, and aesthetics;

~~bc.~~ Ballet, folk, jazz, and modern dance with an area of concentration in one of these areas;

~~ed.~~ Scientific foundations, including human anatomy, kinesiology, and injury prevention and care for dance arts;

~~de.~~ The relationship of dance arts and culture and the influence of dance on past and present cultures, including history of dance; ~~and~~

f. Knowledge and understanding of artistic copyright laws;

g. Assessment strategies to foster, support, and enhance student dance arts learning;

~~eh.~~ Related areas of ~~dance~~ the fine arts, such as ~~art~~, music, ~~and~~ theater arts, and the visual arts; ~~and~~

i. Observation and student teaching experiences at the elementary, middle, and secondary levels.

3. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in dance arts; or
2. Completed a major in dance arts or 24 semester hours with course distribution in the following areas:
  - a. Development of movement language: 9 semester hours.
    - (1) A course in each area --ballet, folk, jazz, and modern dance: 6 semester hours; and
    - (2) Area of concentration in one area --ballet, folk, jazz, or modern dance beyond the entry level: 3 semester hours;
  - b. Composition, improvisation, and dance arts production (may include stage lighting, stage costuming, or stage makeup): 3 semester hours;
  - c. Scientific foundations, including human anatomy, kinesiology, and injury prevention and care for dance arts: 9 semester hours; and
  - d. Cultural understanding, including ~~history of dance~~ cultural context and dance history: 3 semester hours.

C. Add-on endorsement requirements in dance arts. The candidate must have:

1. A baccalaureate degree and an endorsement in any teaching area; and
2. Completed 15 semester hours of course work in the following areas:
  - a. Development of movement language: 9 semester hours.

(1) A course in each area --ballet, folk, jazz, and modern: 6 semester hours; and

(2) Area of concentration in one area --ballet, folk, jazz, or modern beyond the entry level: 3 semester hours;

b. Composition, improvisation, and dance arts production (may include stage lighting, stage costuming, or stage makeup): 3 semester hours; and

c. Cultural understanding, including ~~history of dance~~ cultural context and dance history: 3 semester hours.

**8VAC20-21-230. Driver education (add-on endorsement).**

A. The program in driver education will ensure that the candidate has demonstrated the following competencies:

1. Basic understanding of the administration of a driver education program as required by §22.1-205 of the Code of Virginia and the *Curriculum and Administrative Guide for Driver Education in Virginia* including:

a. Coordination and scheduling of classroom and in-car instruction;

b. Skill and content knowledge assessment;

c. Student safety and other legal issues;

d. The juvenile ~~and standard~~ licensing processes;

e. ~~Compulsory attendance and other licensing related statutes;~~ Motor Vehicle section of the Code of Virginia; ~~and~~

- f. Vehicle procurement, ~~identification~~ and equipment requirements; and
  - g. Instructional technologies.
2. Basic content knowledge needed to understand and teach classroom and in-car driver education including:
- a. Traffic laws, signs, signals, pavement markings, and right-of-way rules;
  - b. Licensing procedures, and other legal responsibilities associated with the driving privilege;
  - c. ~~Basic driving and~~ Vehicle control skills;
  - d. Interaction with other highway users (pedestrians, animals, motorcycles, bicycles, trucks, buses, trains, trailers, motor homes, ATVs, and other recreational users);
  - e. Time, space, visibility and risk management skills;
  - f. Alcohol and other drugs and driving;
  - g. Passive and active restraint systems;
  - h. Vehicle maintenance;
  - i. ~~Legal responsibilities of owning and operating a motor vehicle~~;

~~jj.~~ Behavioral aspects of crash prevention; Risk reducing behaviors;  
(aggressive driving, fatigue and distracted driving);

~~kj.~~ Natural laws and driving;

~~hl.~~ Adverse driving conditions and handling emergencies; and

~~mn.~~ Planning a safe trip.

3. Basic content knowledge needed to understand and teach the driver education laboratory phase including:

a. Simulation and other instructional technologies;

b. Multiple-~~vehicle~~ car range;

c. ~~Prescribed~~ route planning;

d. Basic and evasive maneuvers;

e. Vehicle control from instructor's seat;

~~e.f.~~ Manual transmission; and

~~f.g.~~ Administration of the driver's license road skills examination and procedures for licensing students with disabilities.

4. Understanding of and proficiency in grammar, usage, and mechanics and their

integration in writing.

B. Endorsement requirements. The candidate must have:

1. Completed an approved teacher preparation program in driver education; or
2. Completed 6 semester hours of course work distributed in the following areas:
  - a. ~~Foundations of traffic safety:~~ Driver Task Analysis: 3 semester hours; and
  - b. Principles and methodologies of classroom and in-car instruction, including a minimum of ~~20~~ 14 hours of actual behind-the-wheel supervised teaching experience and 2 hours of basic evasive maneuvers: 3 semester hours.

**8VAC20-21-240. English.**

A. The program in English will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of English as defined in the Virginia Standards of Learning;
2. Skills necessary to teach the writing process and the different forms of writing (~~creative~~, narrative, descriptive, expository, persuasive, and technical informational) and to employ available ~~computer~~/technology;
3. Knowledge of grammar, usage, and mechanics and their integration in writing;
4. Understanding of the ~~theory of linguistics and of the~~ nature and development of language and their impact on vocabulary development and spelling including vocabulary appropriate to the topic, audience, and purpose;

5. Knowledge of reading strategies and techniques used to enhance reading comprehensive skills, ~~including technical reading skills~~;
6. Knowledge of speaking and listening skills;
7. Knowledge of ~~major~~ varied works from British, American, world, and ethnic/minority literature appropriate for English instruction; and
8. The ability to provide experiences in communication arts, such as journalism, dramatics, debate, forensics, radio, television, films and other media.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in English; or
2. Completed a major in English or a minimum of 36 semester hours of course work distributed in the following areas:
  - a. Literature: 12 semester hours. Courses must include:
    - (1) Survey of British literature;
    - (2) Survey of American literature;
    - (3) World literature; and
    - (4) Literary theory/criticism.
  - b. Language: 6 semester hours. Experiences shall include:
    - (1) The development and nature of the English language, including some attention to comparative English grammar; and
    - (2) A grammar course integrating grammar and writing.

c. Composition: 6 semester hours. Experiences shall include:

(1) The teaching of writing, based on current knowledge and most effective practices, including the use of technology for this purpose; and

(2) An advanced composition course --expository and ~~technical~~ informational writing.

d. Oral language: 3 semester hours. Experiences shall include the teaching of oral language in groups, as well as attention to oral language as used in both formal and informal presentations.

e. Electives from the areas listed above: 9 semester hours.

**8VAC20-21-250. English as a second language preK-12.**

A. The program in English as a second language will ensure that the candidate has demonstrated the following competencies:

1. Knowledge of general linguistics and English linguistics;
2. Skills in elementary and secondary teaching methods and student assessment for English as a second language;
3. Skills in the teaching of reading to include the five areas of reading instruction: phonemic awareness, phonics, fluency, vocabulary and text comprehension as well as the similarities and differences between reading in a first language and reading in a second language;
4. Knowledge of the effects of socio-cultural variables in the instructional setting;
5. Proficiency in spoken and written English;

6. Knowledge of another language and its structure; and
7. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in English as a second language; or
2. Completed ~~24~~ 27 semester hours of course work distributed in the following areas:
  - a. Teaching of reading (the courses must include the five areas of reading instruction: phonemic awareness, phonics, fluency, vocabulary and text comprehension as well as the similarities and differences between reading in a first language and reading in a second language: at least ~~3~~ 6 semester hours;
  - b. English linguistics (including phonology, morphology, syntax of English): 3 semester hours;
  - c. Cross-cultural education: 3 semester hours;
  - d. Modern foreign languages (if an applicant's primary language is other than English, all 6 hours must be in English): 6 semester hours;
  - e. Electives in second language acquisition, general linguistics, applied linguistics, psycholinguistics, sociolinguistics, ESL assessment, or ESL curriculum development: 6 semester hours; and
  - f. Methods of teaching English as a second language at the elementary and secondary levels: 3 semester hours.

**8VAC20-21-260. Foreign language preK-12.**

A. The specific language of the endorsement will be noted on the license.

B. Foreign language preK-12 --languages other than Latin.

1. The program in the foreign language will ensure that the candidate has:

a. Demonstrated the following competencies:

(1) Understanding of authentic speech at a normal tempo;

(2) Ability to speak with a command of vocabulary, pronunciation, and syntax adequate for expressing thoughts to a native speaker not used to dealing with foreigners;

(3) Ability to read and comprehend authentic texts of average difficulty and of mature content;

(4) Ability to write a variety of texts including description and narration with clarity and correctness in vocabulary and syntax;

(5) Knowledge of geography, history, social structure and artistic and literary contributions of the target societies;

(6) Ability to interpret contemporary lifestyles, customs, and cultural patterns of the target societies;

(7) Understanding of the application of basic concepts of phonology, syntax, and morphology to the teaching of the foreign language;

(8) Knowledge of the national standards for foreign language learning, current proficiency-based objectives of the teaching of foreign languages at the elementary and secondary levels, elementary and secondary methods and techniques for attaining these objectives, the assessment of

foreign language skills, the use of media in teaching languages, current curricular developments, the relationship of language study to other areas of the curriculum, and the professional literature of foreign language teaching; and

(9) Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing; and

b. Participated in opportunities for significant foreign language study or living experiences in this country or abroad, or both.

## 2. Endorsement requirements.

a. The candidate must have (i) graduated from an approved teacher preparation program in a foreign language; or (ii) completed 30 semester hours above the intermediate level in the foreign language. (Endorsement in a second language may be obtained with 24 semester hours of course work above the intermediate level.) The program shall include (i) courses in advanced grammar and composition, conversation, culture and civilization, and literature and (ii) a minimum of 3 semester hours of methods of teaching foreign languages at the elementary and secondary levels.

b. Native speakers or candidates who have learned a foreign language without formal academic credit in a college or university must complete the following requirements:

(1) Achieved a minimum score of 600 on the Test of English as a Foreign Language, if English is not the native language. Native speakers of English are exempt from this test;

(2) Achieved a qualifying score approved by the Board of Education composite score at or above the 50th percentile on the American Council on the Teaching of Foreign Languages oral proficiency interview (OPI) and the written proficiency test (WPT). listening, speaking, reading, writing, civilization and culture sections of the Modern Language Association Proficiency Test for Teachers and Advanced Students. No individual section score shall be below the 25th percentile; and

(3) Earned a minimum of 3 semester hours of methods of teaching foreign languages at the elementary and secondary levels from an accredited college or university in the United States.

#### C. Foreign language preK-12 --Latin.

1. The program in Latin will ensure that the candidate has demonstrated the following competencies:

- a. Ability to read and comprehend Latin in the original;
- b. Ability to pronounce Latin with consistent classical (or ecclesiastical) pronunciation;
- c. Knowledge of the vocabulary, phonetics, morphology and syntax of Latin and the etymological impact of Latin;
- d. Ability to discuss the culture and civilization of Greco-Roman society, including history, daily life, art, architecture, and geography;
- e. Ability to explain the relationship of Greco-Roman culture and civilization to subsequent cultures and civilizations;

f. Knowledge of major literary masterpieces and their relationship to the historical and social context of the society;

g. Competency in (i) current methodologies for teaching Latin at the elementary and secondary levels; (ii) lesson planning, scope and sequencing of material, instructional strategies and assessment under the guidance of an experienced Latin teacher; and

h. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

2. Endorsement requirements. The candidate must have:

a. Graduated from an approved teacher preparation program in Latin; or

b. Completed 24 semester hours of Latin above the intermediate level. Up to six hours of Roman history, Roman life, mythology, or archaeology may be included in the total hours and 3 semester hours of methods of teaching Latin at the elementary and secondary levels are required.

D. Foreign language preK-12 --American Sign Language.

1. The program in American Sign Language will ensure that the candidate has:

a. Demonstrated the following competencies:

(1) Understanding of native users of American Sign Language at a normal tempo;

(2) Ability to sign with a command of vocabulary, nonmanual behaviors, and syntax adequate for expressing thoughts to an American Sign

Language user not accustomed to dealing with non-American Sign Language users;

(3) Knowledge of history, social structure and artistic and literary contributions of the deaf culture;

(4) Ability to interpret contemporary lifestyles, customs, and cultural patterns of the deaf culture;

(5) Understanding of the application of basic concepts of phonology (e.g., handshapes, types of signs, orientation on the body, sign movements), syntax, and morphology to the teaching of the American Sign Language;

(6) Knowledge of the national standards for foreign language learning, current proficiency-based objectives of the teaching of foreign languages at the elementary and secondary levels, elementary and secondary methods and techniques for attaining these objectives, the assessment of foreign language skills, the use of media in teaching languages, current curricular developments, the relationship of language study to other areas of the curriculum, and the professional literature of foreign language teaching; and

(7) Understanding of and proficiency in English grammar, usage, and mechanics and their integration in writing.

b. Participation in opportunities for significant study of the linguistics of American Sign Language and immersion experiences in the deaf culture.

## 2. Endorsement requirements.

a. The candidate must have (i) graduated from an approved teacher preparation program in a foreign language--American Sign Language or (ii) completed a

major in American Sign Language or 24 semester hours above the intermediate level in American Sign Language. The program shall include (i) courses in advanced grammar and syntax, conversation, and culture and (ii) a minimum of 3 semester hours of methods of teaching foreign languages at the elementary and secondary levels.

b. Native users or candidates who have learned American Sign Language without formal academic credit in a college or university must complete the following requirements:

(1) Competency in American Sign Language demonstrated by written documentation of one of the following:

(a) Hold a current, valid qualified or professional certification by the American Sign Language Teachers Association;

(b) Hold a current, valid Virginia Quality Assurance Screening Level III Interpreting or higher issued by the Virginia Department for the Deaf and Hard-of-Hearing;

(c) Hold a current, valid Registry of Interpreters for Deaf certification in at least one of the following: Certificate of Interpretation (CI), Certificate of Deaf Interpretation (CDI), Reverse Skills Certification (RSC), or Comprehensive Skills Certificate (CSC);

(d) Hold a current, valid National Association for the Deaf Level IV or higher.

- (2) Earned a minimum of 3 semester hours of methods of teaching foreign languages at the elementary and secondary levels from an accredited college or university in the United States.

~~Individuals who are serving as teachers of American Sign Language in a public or accredited nonpublic school who hold a current, valid Virginia teaching license (Collegiate Professional or Postgraduate Professional License) shall be given a period of two years from July 1, 2001, to July 1, 2003, to meet the requirements for the endorsement in American Sign Language. Individuals not employed as teachers of American Sign Language as of July 1, 2001, shall be required to meet the requirements of this chapter.~~

**8VAC20-21-270. Gifted education (add-on endorsement).**

A. The program in gifted education will ensure that the candidate has demonstrated the following competencies:

1. Understanding of principles of the integration of gifted education and general education, including:
  - a. Strategies to encourage the interaction of gifted students with students of similar and differing abilities; and
  - b. Development of activities to encourage parental and community involvement in the education of the gifted, including the establishment and maintenance of an effective advisory committee.
2. Understanding of the characteristics of gifted students, including:
  - a. Varied expressions of advanced aptitudes, skills, creativity, and conceptual understandings;

b. Methodologies that respond to the affective (social-emotional) needs of gifted students; and

c. Gifted behaviors in special populations students (i.e., those who are culturally diverse, ~~low income~~ economically disadvantaged, or physically disabled).

3. Understanding of specific techniques to identify gifted students using diagnostic and prescriptive approaches to assessment, including:

a. The selection, use, and evaluation of Mmultiple assessment instruments and identification strategies through a review of portfolios or performance, or both;

b. The use of both subjective and objective measures to provide relevant information regarding the aptitude/ability or achievement of potentially gifted students;

c. The use of authentic assessment tools such as portfolios to determine performance, motivation/interest and other characteristics of potentially gifted students;

~~b~~d. The development, use, and reliability of rating scales, checklists, and questionnaires by parents, teachers and others;

~~e~~e. The evaluation of data collected from student records such as grades, honors, and awards; ~~and~~

~~f~~f. The use of case study reports providing information concerning exceptional conditions- ; and

g. The structure, training, and procedures used by the identification and placement committee.

4. Understanding and application of a variety of educational models, teaching methods, and strategies for selecting materials and resources that ensure:

a. Academic rigor through the development of high-level proficiency in all core academic areas utilizing the Virginia Standards of Learning as a baseline;

b. The acquisition of knowledge and development of products that demonstrate ~~reflective~~ of creative and critical thinking as applied to learning both in and out of the classroom; and

c. The development of learning environments ~~which~~ that guide students to become self-directed, independent learners.

5. Understanding and application of ~~theory~~ theories and principles of differentiating curriculum designed to match the distinct characteristics of gifted learners to the programs and curriculum offered to gifted students, including:

a. The integration of multiple disciplines into an area of study;

b. Emphasis on in-depth learning, independent and self-directed study skills and metacognitive skills;

c. The development of analytical, organizational, critical, and creative thinking skills;

d. The development of sophisticated products using varied modes of expression;

e. The evaluation of student learning through appropriate and specific criteria; and

f. The development of advanced technological skills to enhance student performance.

6. Understanding of contemporary issues and research in gifted education, including:

a. The systematic gathering, analyzing, and reporting of formative and summative data; and

b. Current local, state, and national issues and concerns.

7. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

8. The program will include a practicum ~~which~~ that shall include a minimum of 45 instructional hours of successful teaching experiences with gifted students in a heterogeneously grouped (mixed ability) classroom ~~or~~ and a homogeneously grouped (single ability) classroom.

#### B. Endorsement requirements.

1. The candidate must have completed an approved teacher preparation program in gifted education; or

2. The candidate must have:

a. Graduated with a baccalaureate degree with an endorsement in any teaching area;

b. Completed 12 hours of graduate-level course work in gifted education; and

c. Completed a practicum of at least 45 instructional hours pursuant to subdivision A 8 of this section. One year of successful, full-time teaching experience in an accredited public or nonpublic school may be accepted in lieu of the practicum. A

mentor holding a valid license with an endorsement in gifted education must be assigned to the teacher.

**8VAC20-21-280. Health, physical education preK-12, and driver education.**

A. The program in health, and physical education preK-12, and driver education will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of health and physical education as defined in the Virginia Standards of Learning.
2. Understanding ~~of the basic content knowledge needed to teach the structure and function of the human body systems~~ basic human anatomy and physiology needed to teach quality health and physical education.
3. Understanding of the ~~basic content knowledge needed to teach the~~ scientific principles under girding of human movement as ~~it applies~~ they apply to:
  - a. ~~Personal h~~Health-related fitness (flexibility, muscular strength, ~~aerobic~~ cardiovascular endurance, and body composition); and
  - b. ~~Personal s~~Skill-related fitness (coordination, agility, power, balance, speed power and reaction).
4. Basic understanding of the administration of a health and physical education program, including:
  - a. Instruction;
  - b. Student safety and other legal issues;
  - c. Assessment; and

d. Its role in comprehensive school health.

5. Understanding of the knowledge, skills, and processes for teaching health education, including:

a. Personal health and fitness;

b. Mental and emotional health;

c. Nutrition, body image and weight management;

d. Tobacco, alcohol, and other drugs;

e. Safety and emergency care (first aid, CPR, universal precautions);

f. Injury prevention and rehabilitation;

g. Consumer health and information access;

h. Communicable and on-communicable ~~D~~ diseases prevention and treatment; ~~and~~

i. Environmental health;

j. Community health and wellness; and

k. Violence prevention, resistance skills and conflict mediation

6. Basic understanding of the administration of a driver education program as required by Section 22.1-205 of the Code of Virginia and the Curriculum and Administrative Guide for Driver Education in Virginia including:

a. Coordination and scheduling of classroom and in-car instruction;

- b. Skill and content knowledge assessment;
- c. Student safety and other legal issues;
- d. The juvenile licensing process;
- e. Motor Vehicle section of the Code of Virginia;
- f. Vehicle procurement and equipment requirements; and
- g. Instructional technologies.

7. Basic content knowledge needed to understand and teach classroom and in-car driver education including:

- a. Traffic laws, signs, signals, pavement markings, and right-of-way rules;
- b. Licensing procedures, and other legal responsibilities associated with the driving privilege;
- c. Vehicle control skills;
- d. Interaction with other highway users (pedestrians, animals, motorcycles, bicycles, trucks, buses, trains, trailers, motor homes, ATVs, and other recreational users);
- e. Time, space, visibility, and risk management skills;
- f. Alcohol and other drugs and driving;

- g. Passive and active restraint systems;
- h. Vehicle maintenance;
- i. Risk reducing behaviors; (Aggressive driving, fatigue, and distracted driving)
- j. Natural laws and driving;
- k. Adverse driving conditions and handling emergencies; and
- l. Planning a safe trip.

8. Basic content knowledge needed to understand and teach the driver education laboratory phase including:

- a. Simulation and other instructional technologies;
- b. Multiple car range;
- c. Route planning;
- d. Basic and evasive maneuvers;
- e. Vehicle control from instructor's seat;
- f. Manual transmission;

- g. Administration of the driver's license road skills examination; and
- h. Procedures for licensing students with disabilities.

69. Understanding of the knowledge, skills, and processes for teaching physical education, including:

a. Sequential preK-12 instruction in a variety of movement forms that include:

- (1) Cooperative activities;
- (2) Outdoor and adventure activities;
- (~~23~~) Rhythms and dance; and
- (~~34~~) Team and individual activities;

b. Activities for the physically and mentally challenged; and

c. Activities designed to help students understand, develop, and value personal fitness.

710. Understanding of and ability to teach:

- a. The relationship between a physically active lifestyle and health;
- b. The cultural significance of dance, leisure, competition, and sportsmanship; and
- c. The use of new and emerging instructional technology.

811. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in health, ~~and~~ physical education, and driver education; or
2. Completed a major in health, ~~and~~ physical education, and driver education or 45 semester hours of course work distributed in the following areas:
  - a. Personal health and safety: 6 semester hours;
  - b. Human anatomy, physiology, and kinesiology: 12 semester hours;
  - c. General health and physical education theory, including planning, administration, and assessment principles: 6 semester hours;
  - d. Physical education methodology courses, including team, individual, adaptive, cooperative activities, rhythms and dance: 9 semester hours;
  - e. Health methods courses: ~~6~~ 3 semester hours; ~~and~~
  - f. Health and physical education electives: 3-6 semester hours. ~~and~~
  - g. Course work distributed in the following areas:
    1. Driver Task Analysis: 3 semester hours; and
    2. Principles and methodologies of classroom and in-car instruction, including a minimum of 14 hours of actual behind-the-wheel supervised teaching experience and 2 hours of basic evasive maneuvers: 3 semester hours.

Individuals completing an out-of-state approved program or who hold a valid full credential from another state will receive a comparable health, physical education, or driver education endorsement.

**8VAC20-21-290. History and social sciences.**

A. The program in history and social sciences will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of history and the social science disciplines as defined by the Virginia History and Social Sciences Standards of Learning and how the standards provide the foundation for teaching history and the social sciences, including in:

a. United States history.

(1) The evolution of the American constitutional republic and its ideas, institutions, and practices from the colonial period to the present; the American Revolution, including ideas and principles preserved in significant Virginia and United States historical documents as required by §22.1-201 of the Code of Virginia (Declaration of American Independence, the general principles of the Constitution of the United States, the Virginia Statute of Religious Freedom, the charters of April 10, 1606, May 23, 1609, and March 12, 1612, of the Virginia Company, and the Virginia Declaration of Rights); and historical challenges to the American political system;

(2) The influence of religious traditions on American heritage and contemporary American society;

- (3) The influence of immigration on American political, social, and economic life;
- (4) The origins, effects, aftermath and significance of the two world wars, the Korean and Vietnam conflicts, and the Post Cold War Era;
- (5) The social, political, and economic transformations in American life during the 20th century;
- (6) The tensions between liberty and equality, liberty and order, region and nation, individualism and the common welfare, and between cultural diversity and national unity; and
- (7) The difference between a democracy and a republic.

b. World history.

- (1) The political, philosophical, and cultural legacies of ancient American, Asian, African, and European civilizations;
- (2) The origins, ideas, and institutions of Judaism, Christianity, Hinduism, Confucianism and Taoism, and Shinto, Buddhist and Islamic religious traditions;
- (3) Medieval society, institutions, and civilizations; feudalism and the evolution of representative government;
- (4) The social, political, and economic contributions of selected civilizations in Africa, Asia, Europe, and the Americas;
- (5) The culture and ideas of the Renaissance and the Reformation, European exploration, and the origins of capitalism and colonization;

(6) The cultural ideas of the Enlightenment and the intellectual revolution of the 17th and 18th centuries;

(7) The sources, results, and influences of the American and French revolutions;

(8) The social consequences of the Industrial Revolution and its impact on politics and culture;

(9) The global influence of European ideologies of the 19th and 20th centuries (liberalism, republicanism, social democracy, Marxism, nationalism, Communism, Fascism, and Nazism); and

(10) The origins, effects, aftermath and significance of the two world wars, the Korean and Vietnam conflicts, and the Post Cold War Era.

c. Civics/government and economics.

(1) The essential characteristics of limited and unlimited governments;

(2) The importance of the Rule of Law for the protection of individual rights and the common good;

(3) The rights and responsibilities of American citizenship;

(4) The nature and purposes of constitutions and alternative ways of organizing constitutional governments;

(5) American political culture;

(6) Values and principles of the American constitutional republic;

(7) The structures, functions, and powers of local, state, and national governments; ~~and~~

(8) The role of the United States in foreign policy and national security;

(9) The structure of the federal judiciary;

(~~§10~~) The structure and function of the United States market economy as compared with other economies;~~;~~

(11) Knowledge of the impact of the government role in the economy and individual economic and political freedoms.

(12) Knowledge of economic systems in the areas of productivity and key economic indicators; and

(13) The analysis of global economic trends.

d. Geography.

(1) Use of maps and other geographic representations, tools, and technologies to acquire, process, and report information;

(2) Physical and human characteristics of places;

(3) Relationship between human activity and the physical environment;

(4) Physical processes that shape the surface of the Earth;

(5) Characteristics and distribution of ecosystems on the Earth;

(6) Characteristics, distribution, and migration of human populations;

(7) Patterns and networks of economic interdependence;

(8) Processes, patterns, and functions of human settlement;

(9) How the forces of conflict and cooperation influence the division and control of the Earth's surface;

(10) How physical systems affect human systems;

(11) Changes that occur in the meaning, use, distribution, and importance of resources; and

(12) Applying geography to interpret the past and the present and to plan for the future.

2. Understanding of history and social sciences to appreciate the significance of:

a. Diverse cultures and shared humanity;

b. How things happen, how they change, and how human intervention matters;

c. The interplay of change and continuity;

d. How people in other times and places have struggled with fundamental questions of truth, justice, and personal responsibility;

e. The importance of individuals who have made a difference in history and the significance of personal character to the future of society;

f. The relationship among history, geography, civics, and economics;

g. The difference between fact and conjecture, evidence and assertion, and the importance of framing useful questions;

h. How ideas have real consequences; ~~and~~

i. The importance of primary documents and the potential problems with second-hand accounts; and

j. How scientific and technological advances affect the workplace, healthcare, and education.

3. Understanding of the use of the content and processes of history and social sciences instruction, including:

a. Fluency in historical analysis skills;

b. Skill in debate, discussion, and persuasive writing;

c. The ability to organize key social science content into meaningful units of instruction;

d. The ability to provide instruction using a variety of instructional techniques;

e. The ability to evaluate primary and secondary instructional resources, instruction, and student achievement; and

f. The ability to incorporate appropriate technologies into social science instruction.

4. Understanding of the content, processes, and skills of one of the social sciences disciplines at a level equivalent to an undergraduate major, along with sufficient understanding of the three supporting disciplines to ensure:

a. The ability to teach the processes and organizing concepts of social science;

b. An understanding of the significance of the social sciences; ~~and~~

c. Student achievement in the social sciences.; and

d. An understanding of the media influence on contemporary America.

5. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in history and social sciences; or

2. Completed 51 semester hours of course work distributed in the following areas:

a. History: a major in history or 18 semester hours in history (must include American history, Virginia history, English history, and world history);

b. Political science: a major in political science or 18 semester hours in political science;

c. Geography: 9 semester hours; and

d. Economics: 6 semester hours.

C. Add-on endorsement requirements in history, political science, geography, and economics.

The candidate must have:

1. An endorsement in history, political science, geography, or economics; and

2. Completed 21 semester hours of course work in the additional social science area (history, political science, geography, or economics) sought.

**8VAC20-21-330. Mathematics.**

A. The program in mathematics will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of the Virginia Mathematics Standards of Learning and how curriculum may be organized to teach these standards to diverse learners;
2. Understanding of a core knowledge base of concepts and procedures within the discipline of mathematics, including the following strands: number systems and number theory; geometry and measurement; analytic geometry; statistics and probability; functions and algebra; calculus; and discrete mathematics;
3. Understanding of the sequential nature of mathematics and the mathematical structures inherent in the content strands;
4. Understanding of the connections among mathematical concepts and procedures and their practical applications;
5. Understanding of and the ability to use the ~~four~~ five processes --becoming mathematical problem solvers, reasoning mathematically, communicating mathematically, ~~and~~ making mathematical connections, and using mathematical representations —at different levels of complexity;
6. Understanding of the history of mathematics, including the contributions of different individuals and cultures toward the development of mathematics and the role of mathematics in culture and society;
7. Understanding of major current curriculum studies and trends in mathematics;
8. Understanding of the role of technology and the ability to use graphing utilities and computers in the teaching and learning of mathematics;

9. Understanding of and the ability to select, adapt, evaluate and use instructional materials and resources, including professional journals and technology;
10. Understanding of and the ability to use strategies for managing, assessing, and monitoring student learning, including diagnosing student errors;
11. Understanding of and the ability to use strategies to teach mathematics to diverse learners; and
12. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in mathematics; or
2. Completed a major in mathematics or 36 semester hours of course work distributed in each of the following areas:
  - a. Algebra --Experience shall include linear (matrices, vectors, and linear transformations) and abstract algebra (ring, group, and field theory). [A college or university may integrate the competencies within specified coursework and document the completion of these competencies];
  - b. Geometry --Experience shall include Euclidean and non-Euclidean geometries;
  - c. Analytic geometry;
  - d. Probability and statistics;
  - e. Discrete mathematics --Experience shall include the study of mathematical properties of finite sets and systems and linear programming;

- f. Computer science --Experience shall include computer programming; and
- g. Calculus --Experience shall include multi-variable calculus.

**8VAC20-21-350. Music education--instrumental preK-12.**

A. The program in music education--instrumental preK-12 will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of the music discipline as defined in the Virginia Standards of Learning and how they provide a necessary foundation integral to teaching instrumental music.

2. Understanding of the common elements of music --rhythm, melody, harmony, timbre, texture, dynamics, form --and their relationship with each other and to employ this understanding in the analysis of music.

3. Effective musicianship through the development of:

- a. Basic skills in conducting, in score reading, in teaching musical courses and in rehearsal techniques for choral and instrumental music;
- b. Skills in composing, arranging, and adapting music to meet the classroom needs and ability levels of school performing groups;
- c. Skills in providing and directing creative experiences and improvising when necessary;
- d. Proficiency, sufficient for classroom instruction, on keyboard or other accompanying instrument; and
- e. The ability to perform in ensembles.

34. Knowledge of music history and literature with emphasis on the relationship of music to culture and the ability to place compositions in historical and stylistic perspective.

45. Knowledge of a comprehensive program of music education based upon sound philosophy, content, and methodology for teaching in elementary, middle, and secondary schools.

56. Observation and professional laboratory experiences with pupils in elementary, middle, and secondary schools, including instruction of instrumental groups.

67. Specialization on a musical instrument and functional teaching knowledge on each of the string, brass, woodwind, and percussion instruments.

78. Competency in rehearsing and conducting combined instrumental and vocal groups. In addition, the program shall provide instruction in business procedures, organization, and management of large and small instrumental ensembles, with knowledge of vocal techniques in rehearsing and conducting combined instrumental and vocal groups.

9. Knowledge and understanding of artistic copyright laws.

10. Knowledge and understanding of safety, including performance and studio.

11. Assessment strategies to foster, support, and enhance student music learning.

12. Related areas of the fine arts, such as dance arts, theatre arts, and the visual arts.

813. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in music education--  
instrumental; or

2. Completed 42 semester hours of course work in the following areas:
  - a. Basic music knowledge (experiences shall be related to music theory, music history, and literature): 18 semester hours.
  - b. Musical performance (experiences shall consist of developing competency in a primary performance medium (band or orchestral instrument), and in a secondary performance medium (band, orchestral, or keyboard instrument), and in teaching, rehearsing, and conducting ensembles): 18 semester hours.
  - c. Electives (with course work selected from either of the two areas above): 6 semester hours.

**8VAC20-21-360. Music education--vocal/choral preK-12.**

- A. The program in music education--vocal/choral preK-12 will ensure that the candidate has demonstrated the following competencies:
  1. Understanding of the knowledge, skills, and processes of the music discipline as defined in the Virginia Standards of Learning and how they provide a necessary foundation integral to teaching instrumental music.
  42. Understanding of the common elements of music --rhythm, melody, harmony, timbre, texture, dynamics, form --and their relationship with each other and to employ this understanding in the analysis of music.
  23. Effective musicianship through the development of:
    - a. Basic skills in conducting, in score reading, in teaching musical courses, and in rehearsal techniques for choral and instrumental music;

- b. Skills in composing, arranging, and adapting music to meet the classroom needs and ability levels of school performing groups;
  - c. Skills in providing and directing creative experiences and improvising when necessary;
  - d. Proficiency, sufficient for classroom instruction, on keyboard or other accompanying instrument; and
  - e. The ability to perform in ensembles.
34. Knowledge of music history and literature with emphasis on the relationship of music to culture and the ability to place compositions in historical and stylistic perspective.
45. Knowledge of a comprehensive program of music education based upon sound philosophy, content, and methodology for teaching in elementary, middle, and secondary schools.
56. Observation and professional laboratory experiences with pupils at elementary, middle, and secondary levels, including instruction of choral groups.
67. Specialization in the methods, materials, and media appropriate to the teaching of vocal/choral and general music at elementary, middle, and secondary levels.
78. Competency in rehearsing and conducting choral ensembles and combined vocal and instrumental school groups. In addition, the program shall provide instruction in business procedures, organization, and management of large and small choral ensembles, with knowledge of instrumental techniques in rehearsing and conducting combined vocal and instrumental school groups.
9. Knowledge and understanding of artistic copyright laws.
10. Knowledge and understanding of safety, including performance and studio.

11. Assessment strategies to foster, support, and enhance student music learning.
12. Related areas of the fine arts, such as dance arts, theatre arts, and the visual arts.

§13. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in music education--vocal/choral; or
2. Completed 42 semester hours of course work distributed in the following areas:
  - a. Basic music knowledge (experiences shall be related to music theory, music history, and literature): 18 semester hours.
  - b. Musical performance (experiences shall consist of developing competency in a primary and secondary medium, selected from voice or keyboard; and in teaching, rehearsing, and conducting ensembles): 18 semester hours.
  - c. Electives (with course work selected from either of the two areas above): 6 semester hours.

**8VAC20-21-390. Science--Earth science.**

A. The program in Earth science will ensure that the candidate demonstrates the following competencies:

1. Understanding of the knowledge, skills, and processes of the four core science disciplines as defined in the Virginia Science Standards of Learning and how these provide a sound foundation for teaching Earth science.
2. Understanding of the nature of science and scientific inquiry, including the:

- a. Function of research design and experimentation;
  - b. Role and nature of the theory in explaining and predicting events and phenomena; and
  - c. Role of observation, measurement, data, and evidence in verifying and validating scientific concepts and principles.
3. Understanding of the knowledge, skills, and processes for teaching laboratory science, including the ability to:
  - a. Design instruction reflecting the goals of the Virginia Science Standards of Learning;
  - b. Conduct research projects and experiments;
  - c. Implement laboratory safety rules/procedures and ensure that students take appropriate safety precautions;
  - d. Organize key Earth science content into meaningful units of instruction;
  - e. Adapt instruction to diverse learners using a variety of techniques;
  - f. Evaluate student achievement, instructional materials, and teaching practices; and
  - g. Incorporate instructional technology to enhance student performance.
4. Understanding of the content, processes, and skills of Earth science, equivalent to an undergraduate degree in geology (or a related area), with course work in geology, oceanography, meteorology, and astronomy.

5. Understanding of basic physics, chemistry (including organic chemistry), biology, and mathematics to ensure:

- a. The placement of Earth science in an appropriate interdisciplinary context;
- b. The ability to teach the processes and organizing concepts common to the natural and physical sciences; and
- c. Student achievement in Earth science.

6. Understanding of the contributions and significance of Earth science, including:

- a. Its social and cultural significance;
- b. The relationship of Earth science and other sciences to technology; and
- c. The historical development of scientific concepts and scientific reasoning.

7. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in Earth science;
2. Completed a major in geology or environmental science with at least one course in each of the following: oceanography, meteorology, and astronomy, or 32 semester hours in Earth sciences, including geology (18 semester hours), oceanography, meteorology, and astronomy and other preparation consistent with the above competencies; or
3. Earned an endorsement in another science discipline and at least 18 credits in Earth sciences, including preparation in each of the following areas: geology, oceanography, meteorology, and astronomy.

**8VAC20-21-480. Theater arts preK-12.**

A. The program in theater arts preK-12 will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of the theater arts discipline as defined in the Virginia Standards of Learning and how these provide a necessary foundation integral to teaching theater arts.

2. Understanding of the knowledge, skills and processes for teaching theater arts to the developmental levels of students in preK-12, including the following:

a. Experience in planning, developing, administering, and evaluating a program of theater arts education;

b. Knowledge and understanding for teaching theatre arts, including: performance and production, cultural context and theatre history, judgment and criticism, and aesthetics;

bc. Directing;

ed. Technical theater, including lighting, set design, stage craft, costuming, makeup, and safety;

de. Performance, including acting and acting styles;

ef. Dramatic literature;

fg. The relationship of theater and culture and the influence of theater on past and present cultures, including the history of theater; ~~and~~

h. Knowledge and understanding of artistic copyright laws;

i. Knowledge and understanding of safety, including performance and studio;

j. Assessment strategies to foster, support, and enhance student theatre arts learning; and

gk. Related areas of theater arts, such as ~~art~~, dance arts, ~~and~~ music, and the visual arts.

l. Observation and student teaching experiences at the elementary, middle and secondary levels.

3. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in theater arts; or

2. Completed a major in theater or 33 semester hours distributed among the following areas:

a. Directing: 6 semester hours;

b. Technical theater: 9 semester hours;

c. Cultural context and Theater history: 3 semester hours;

d. Performance: 6 semester hours; and

e. Dramatic literature: 9 semester hours.

C. Add-on endorsement requirements in theater arts preK-12. The candidate must have:

1. A baccalaureate degree and an endorsement in any teaching area; and

2. Completed 15 semester hours distributed in the following areas:
  - a. Directing: 3 semester hours;
  - b. Technical theater: 3 semester hours;
  - c. Cultural context and Theater history: 3 semester hours; and
  - d. Performance: 6 semester hours.

**8VAC20-21-490. ~~Vocational education--agricultural education.~~**

~~A. The program in agricultural education will ensure that the candidate has demonstrated the following competencies:~~

- ~~1. Understanding of the importance and relationship of agriculture to the economy of the community, the state, and the nation, including:
  - a. An awareness and appreciation for agriculture;
  - b. Knowledge of the occupational opportunities in agriculture and related fields;
  - c. Knowledge of the U.S. food and fiber system; and
  - d. Knowledge of the contributions of agriculture to the economy of the state and nation.~~
- ~~2. Understanding of the knowledge, skills, and processes involved in plant and soil sciences, including:
  - a. Production, use, and marketing of row crops, specialty crops, forage crops, fruits, small grains, vegetables, and cereal crops; and
  - b. Soil and water management.~~

~~3. Understanding of the knowledge, skills, and processes involved in the production, management, and marketing of animals, including:~~

~~a. Production of cattle, swine, poultry, dairy cows, sheep, aquaculture species, goats, and horses; and~~

~~b. Care and management of small companion animals.~~

~~4. Understanding of the knowledge, skills, and processes involved in agricultural mechanics, including:~~

~~a. Safe operation, repair, and maintenance of equipment, tools, and machinery used in agriculture;~~

~~b. Setting up and adjusting agriculture machinery;~~

~~c. Basic knowledge of a set of hand tools, measuring devices, and testing equipment used in agriculture;~~

~~d. Basic knowledge of energy transfer systems used in agriculture; and~~

~~e. Properties of metals used in tools and equipment.~~

~~5. Understanding of agricultural economics, including the various markets, international trade, government policies, and the operation and management of various agricultural businesses.~~

~~6. Understanding of the knowledge, skills, and processes involved in natural resources, including:~~

~~a. Care, management, and conservation of soil, air, water, and wildlife; and~~

~~b. Production and management of the forest.~~

~~7. Understanding of the importance and processes necessary for community resource development, including:~~

~~a. Fundamentals of the community development process;~~

~~b. Knowledge of public and private programs and resources available;~~

~~c. Knowledge of the promotion of community development; and~~

~~d. Knowledge of civic organizations and their purposes.~~

~~8. Knowledge of and the ability to teach:~~

~~a. How the biological, physical, and applied sciences relate to practical solutions of agricultural problems;~~

~~b. Leadership development skills; and~~

~~c. Agricultural competencies needed by secondary students to be successful in continuing their education and entering a related occupation.~~

~~9. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization (FFA) and implement the organization's activities as an integral part of instruction.~~

~~10. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements. The candidate must have:~~

~~1. Graduated from an approved teacher preparation program in agricultural education; or~~

~~2. Completed a major in agricultural education or 39 semester hours of course work in agriculture, including at least 3 semester hours in each of the following:~~

- ~~a. Plant science;~~
- ~~b. Animal science;~~
- ~~c. Agricultural mechanics;~~
- ~~d. Agricultural economics and management;~~
- ~~e. Forestry/wildlife management;~~
- ~~f. Horticulture; and~~
- ~~g. Technology/microcomputer applications.~~

~~C. Technical Professional License. An endorsement in horticulture or agricultural machinery may be granted to individuals who have:~~

- ~~1. Been recommended by an employing Virginia educational agency;~~
- ~~2. Completed four years of occupational experience in the area sought; and~~
- ~~3. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in vocational education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours). The professional studies requirements may be met under a Provisional License.~~

~~8VAC20-21-500. Vocational education -- business education.~~

~~A. The program in business education will ensure that the candidate has demonstrated the following competencies:~~

~~1. Knowledge, skills, and principles of manual and automated accounting, including:~~

~~a. Accounting concepts, terminology, and applications;~~

~~b. Accounting systems; and~~

~~c. The basic accounting cycle of source documents, verifications, analyzing, recording, posting, trial balances, and preparing financial statements.~~

~~2. Knowledge and skills necessary to:~~

~~a. Communicate basic economic principles as applied to the American economic system; and~~

~~b. Apply basic economic principles to consumerism.~~

~~3. Knowledge and skills in the foundations of business selected from the following areas:~~

~~a. Business law.~~

~~(1) Ability to recognize the legal requirements affecting business organization; and~~

~~(2) Ability to apply legal principles to business situations;~~

~~b. Business principles.~~

~~(1) Ability to identify, explain, and apply contemporary business principles; and~~

~~(2) Ability to identify and explain the advantages and disadvantages of various business organizational structures;~~

~~e. Management. Understanding of basic management concepts and leadership styles to explore and solve problems in business functions, economics, international business, and human relations issues;~~

~~d. Marketing.~~

~~(1) Understanding of basic marketing concepts in sales techniques, advertising, display, buying, wholesale/retail, distribution, service occupations, market analysis, warehousing, and inventory control; and~~

~~(2) Understanding of the unique characteristics of an entrepreneur and the knowledge and skills necessary for an entrepreneurial venture;~~

~~e. Finance.~~

~~(1) Knowledgeable about and skilled in the areas of money management, recordkeeping, and banking needed for sound financial decision making; and~~

~~(2) Understanding of the basic concepts of economics, insurance, credit, and other related topics; or~~

~~f. Insurance. Understanding of the purpose of insurance, types of property losses, types of risk insurance protection, insurance for specific business activities, and noninsurable risks.~~

~~4. Knowledge and skills in all of the following communications and information technologies:~~

~~a. Communications.~~

~~(1) Ability to communicate in a clear, courteous, concise, and correct manner for personal and professional purposes through the foundations of listening, writing, reading, speaking, non-verbal cues, and following written/oral directions; and~~

~~(2) Ability to use technology to expedite and enhance the effectiveness of communications and telecommunications.~~

~~b. Business systems. Ability to use current and emerging business systems and procedures to diagnose/solve problems in office procedures and management, including workflow topics, accessing references, records management, recordkeeping, managing travel and meetings, handling mail, and transcription of voice-dictated and voice-recorded dictation.~~

~~c. Computer applications.~~

~~(1) Ability to identify, select, evaluate, use, install, upgrade, and customize application software;~~

~~(2) Ability to diagnose and solve problems in word processing, database, spreadsheet, graphics, desktop/presentation/multimedia and imaging, and emerging computer applications; and~~

~~(3) Ability to integrate the applications.~~

~~d. Word processing and information systems.~~

~~(1) Ability to use word processing applications software to create, modify, and print personal, educational, and business documents, and import other applications to word processing documents;~~

~~(2) Ability to identify, select, evaluate, use, install, upgrade, customize, and diagnose and solve problems with various types of operating systems, environments, and utilities; and~~

~~(3) Ability to compare, evaluate, and demonstrate skills in the use of programming languages.~~

~~e. Keyboarding.~~

~~(1) Possession of skills in fingering and keyboard manipulation techniques to model and provide touch keyboarding instruction;~~

~~(2) Ability to provide instruction that allows students to develop touch fingering techniques in a kinesthetic response to the keyboard required for rapid, accurate entry of data and information; and~~

~~(3) Ability to provide instruction for current procedures in formatting documents.~~

~~5. Experience in a supervised business career through cooperative education, internship, shadowing, mentorship, and/or work experience.~~

~~6. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction.~~

~~7. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements. The candidate must have:~~

~~1. Graduated from an approved teacher preparation program in business education; or~~

~~2. Completed 39 hours of course work in business, including:~~

- ~~a. Accounting: 6 semester hours;~~
- ~~b. Economics: 3 semester hours;~~
- ~~c. Business law, business principles, management, marketing, finance, or insurance: 12 semester hours;~~
- ~~d. Communications: 3 semester hours;~~
- ~~e. Business systems and procedures: 3 semester hours;~~
- ~~f. Computer applications: 3 semester hours;~~
- ~~g. Word processing and information systems: 3 semester hours;~~
- ~~h. Keyboarding: 3 semester hours; and~~
- ~~i. Supervised business experience: 3 semester hours.~~

~~C. Technical Professional License. An endorsement in a specialized business area, such as medical office procedures, legal office procedures, and network administration, may be granted to individuals who have:~~

- ~~1. Been recommended by an employing Virginia educational agency;~~
- ~~2. Completed two years of occupational experience in the endorsement area sought;~~
- ~~3. Completed a business program equivalent to a two-year associate degree in the area sought; and~~
- ~~4. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in vocational education: 3~~

~~semester hours; and applications of instructional technology or foundations of education: 3 semester hours). The professional studies requirements may be met under a Provisional License.~~

**8VAC20-21-510. ~~Vocational education -- health occupations education.~~**

~~A. The program in health occupations education will ensure that the candidate has demonstrated the following competencies:~~

~~1. Knowledge of teaching methods.~~

- ~~a. Instructional planning—ability to determine the needs and interests of students;~~
- ~~b. Organizing instruction—ability to prepare teacher-made instructional materials for clinical laboratory experience;~~
- ~~c. Instructional execution—ability to use techniques for simulating patient care and demonstrating manipulative skills;~~
- ~~d. Application of technology in the classroom; and~~
- ~~e. Instructional evaluation—ability to determine grades for students in classroom and clinical settings.~~

~~2. Knowledge of program management.~~

- ~~a. Planning—ability to organize an occupational advisory committee;~~
- ~~b. Curriculum development—ability to keep informed of current curriculum content and patient care practices;~~
- ~~c. Planning and organizing teaching/occupational laboratory for laboratory simulations/demonstrations;~~

- ~~d. Understanding of the process for issuing credentials for health workers;~~
- ~~e. Understanding of the health care industry; and~~
- ~~f. Evaluation—ability to conduct a student follow-up study.~~

~~3. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction.~~

~~4. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements:~~

~~1. The candidate must have:~~

- ~~a. Graduated from an approved program of study for the preparation of health care professionals;~~
- ~~b. A license or be certified as a professional practitioner in the area in which one is to be teaching; and~~
- ~~c. Completed two years of occupational experience in an area related to the area to be taught.~~

~~2. Technical Professional License. An endorsement in a specialized health occupations area may be granted to individuals who have:~~

- ~~a. Been recommended by an employing Virginia educational agency;~~
- ~~b. A license or be certified as a professional practitioner in the area in which one is to be teaching;~~

- ~~c. Completed two years of occupational experience in the area sought;~~
- ~~d. Completed a health occupations' certificate or associate degree program; and~~
- ~~e. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in vocational education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours). The professional studies requirements may be met under a Provisional License.~~

**8VAC20-21-520. ~~Vocational education -- industrial cooperative training (add-on endorsement).~~**

~~A. The program in industrial cooperative training (ICT) will ensure that the candidate has demonstrated the following competencies:~~

- ~~1. Understanding of industrial education and its role in the development of technically competent, socially responsible, and culturally sensitive individuals with potential for leadership in skilled technical work and professional studies;~~
- ~~2. Understanding of and the ability to relate experiences designed to develop skills in the interpretation and implementation of industrial education philosophy in accordance with changing demand;~~
- ~~3. The knowledge and experience of systematically planning, executing, and evaluating individual and group instruction;~~
- ~~4. Understanding of the competencies necessary for effective organization and management of laboratory instruction;~~
- ~~5. Understanding of the competencies necessary for making physical, social, and emotional adjustments in multicultural student teacher relationships;~~

~~6. Understanding of the competencies necessary for developing and utilizing systematic methods and instruments for appraising and recording student progress in the vocational classroom;~~

~~7. Understanding of the ability to provide technical work experience through cooperative education or provide a method of evaluating previous occupational experience commensurate with the minimum required standard;~~

~~8. Understanding of the competencies necessary to assist students in job placement and in bridging the gap between education and work;~~

~~9. Understanding of the awareness of the human relations factor in industry with emphasis on the area of cooperation among labor, management, and the schools;~~

~~10. Understanding of the teacher's role in the school and community;~~

~~11. Understanding of the content, skills, and techniques necessary to teach a particular trade area;~~

~~12. Understanding of the competencies necessary to organize and manage an effective student organization; and~~

~~13. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements:~~

~~1. The candidate must have graduated from an approved teacher preparation program in industrial cooperative training (ICT); or~~

~~2. The candidate must have:~~

~~a. A Virginia Collegiate Professional or Postgraduate Professional License;~~

~~b. Completed two years or more of successful, full-time teaching experience;~~

~~e. Completed 15 semester hours in trade and industrial education course work distributed in the following areas:~~

~~(1) Administration and coordination of ICT or equivalent cooperative education course;~~

~~(2) Methods and development of competency-based related instructional materials for ICT;~~

~~(3) Vocational student organizations;~~

~~(4) Implementation of a competency-based (CBE) curriculum; and~~

~~(5) Development and utilization of directly related occupational materials; and~~

~~d. In the area of occupational experience, evidence of a minimum of two years or 4,000 hours of acceptable employment in a trade, technical, or industrial education subject area.~~

**8VAC20-21-530. Vocational education -- marketing education.**

~~A. The program in marketing education will ensure that the candidate has demonstrated the following competencies:~~

~~1. Knowledge of marketing, merchandising, marketing mathematics, communication theory and techniques, advertising and sales promotion, personal selling, and management through a variety of educational and work experiences;~~

~~2. Knowledge of planning, developing, and administering a comprehensive program of marketing education for high school students and adults;~~

- ~~3. Knowledge of organizing and using a variety of instructional methods and techniques for teaching youths and adults;~~
- ~~4. Knowledge of conducting learning programs that include a variety of career objectives and recognize and respond to individual differences in students;~~
- ~~5. Knowledge of assisting learners of different abilities in developing skills needed to qualify for further education and employment;~~
- ~~6. Knowledge of acquiring knowledge of career requirements and opportunities in marketing, merchandising, and management;~~
- ~~7. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction;~~
- ~~8. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing; and~~
- ~~9. Knowledge of utilizing current technological applications as these relate to marketing functions.~~

~~B. Endorsement requirements. The candidate must have:~~

- ~~1. Graduated from an approved teacher preparation program in marketing education; or~~
- ~~2. Completed the following educational and occupational requirements:~~
  - ~~a. Thirty semester hours of course work distributed in the following areas: marketing process and management, economics, merchandising and operations, advertising/sales promotion, personal selling, marketing math, communication~~

~~theory and techniques, business ethics, human resources/training and development, international business/marketing, or marketing technology; and~~

~~b. A minimum of 1,000 clock hours in a marketing occupation within the last five years, 500 hours of which must have been university supervised or the applicant whose baccalaureate degree is in an area other than marketing education must have completed a minimum of 4,000 clock hours of occupational experience within the last five years in one or more marketing occupations.~~

~~C. Technical Professional License. An endorsement in a specialized marketing area, such as apparel and accessories, financial services, hotel/motel operations, international marketing, real estate, or restaurant, may be granted to individuals who have:~~

~~1. Been recommended by an employing Virginia educational agency;~~

~~2. A license or are certified as a professional practitioner in the area in which one is to be teaching;~~

~~3. Completed a registered apprenticeship program and two years of satisfactory experience at the journeyman level or an equivalent level in the trade;~~

~~4. Completed four years of work experience at the management or supervisory level or equivalent or have a combination of four years of training and work experience at the management or supervisory level or equivalent; and~~

~~5. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in vocational education career and technical education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours). The professional studies requirements may be met under a Provisional License.~~

**8VAC20-21-540. ~~Vocational education -- technology education.~~**

A. ~~The program in technology education will ensure that the candidate has demonstrated the following competencies:~~

~~1. Understanding and utilization of technology, including the human activities of:~~

~~a. Designing and developing technological systems;~~

~~b. Determining and controlling the behavior of technological systems;~~

~~c. Utilizing technological systems; and~~

~~d. Assessing the impacts and consequences of technological systems.~~

~~2. Understanding of technological knowledge, including:~~

~~a. The nature and evolution of technology;~~

~~b. Technological concepts and principles; and~~

~~c. Technological resources, impacts, consequences, and linkages with other fields.~~

~~3. Understanding and utilization of the major systems of technology, including the:~~

~~a. Synthesis of the processes for creating, encoding, transmitting, receiving, decoding, storage, and retrieval of information using communication systems in a global information society;~~

~~b. Application of the principles and processes characteristic of contemporary and future production systems, including the research, engineering design and testing, planning, organization, resources, and distribution; and~~

~~c. Integration and organization of transportation systems, including land, sea, air, and space as a means of transporting people, goods, and services in a global economy.~~

~~4. Understanding and utilization of the knowledge, skills, and processes for teaching in a laboratory environment, including:~~

~~a. Laboratory safety rules, regulations, processes and procedures;~~

~~b. Ability to organize technological content into effective instructional units;~~

~~c. Ability to deliver instruction to diverse learners;~~

~~d. Ability to evaluate student achievement, curriculum materials and instructional processes;~~

~~e. Ability to incorporate new and emerging instructional technologies to enhance student performance; and~~

~~f. Understanding the concepts and procedures for developing a learner's technological literacy.~~

~~5. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction;~~

~~6. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements. The candidate must have:~~

~~1. Graduated from an approved teacher preparation program in technology education;~~

~~2. Completed a major in technology education or 39 semester hours in technology education distributed in the following areas:~~

~~a. Technology and culture (experiences shall include the historical development of technology and its present and future impact on the individual, society and the environment): 6 semester hours;~~

~~b. Technological foundations (experiences shall include technical design and illustration, energy and power, electronics, and materials science): 12 semester hours;~~

~~c. Technological processes (experiences shall include technical design, material processing, manufacturing, construction, and graphic communication): 12 semester hours; and~~

~~d. Technological systems (experiences shall include communication, production, and transportation systems): 9 semester hours; or~~

~~3. Earned a baccalaureate degree from an accredited college or university with a major in one of the following fields of study: architecture, design, engineering, or physics; and completed 18 semester hours of technology education content course work, including at least 3 semester hours in each of the following areas: technology and culture, technological foundations, technological processes, and technological systems.~~

**8VAC20-21-550. ~~Vocational education -- trade and industrial education.~~**

~~A. The program in trade and industrial education will ensure that the candidate has demonstrated the following competencies:~~

~~1. Understanding of industrial education and its role in the development of technically competent, socially responsible, and culturally sensitive individuals with potential for leadership in skilled technical work and/or professional studies;~~

- ~~2. Understanding of and the ability to relate experiences designed to develop skills in the interpretation and implementation of industrial education philosophy in accordance with changing demand;~~
- ~~3. The knowledge and experience of systematically planning, executing, and evaluating individual and group instruction;~~
- ~~4. Knowledge of the competencies necessary for effective organization and management of laboratory instruction;~~
- ~~5. Knowledge of the competencies necessary for making physical, social, and emotional adjustments in multicultural student teacher relationships;~~
- ~~6. Knowledge of the competencies necessary for developing and utilizing systematic methods and instruments for appraising and recording student progress in the vocational classroom;~~
- ~~7. Knowledge of the ability to provide technical work experience through cooperative education or provide a method of evaluating previous occupational experience commensurate with the minimum required standard;~~
- ~~8. Knowledge of the competencies necessary to assist students in job placement and in otherwise bridging the gap between education and work;~~
- ~~9. Understanding of the awareness of the human relations factor in industry, with emphasis on the area of cooperation among labor, management, and the schools;~~
- ~~10. Knowledge of the teacher's role in the school and community;~~
- ~~11. Understanding of the content, skills, and techniques necessary to teach a particular trade area;~~

~~12. Knowledge of the competencies necessary to organize and manage an effective student organization; and~~

~~13. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements.~~

~~1. The candidate must have graduated from an approved teacher preparation program in the trade and industrial education program subject area for which the candidate is seeking endorsement; or~~

~~2. A candidate who has graduated from an approved teacher preparation program that is not in the trade and industrial education program subject area for which the candidate is seeking endorsement must have:~~

~~a. A current state licensure or industry certification based upon the prescribed standard or examination, if applicable; and~~

~~b. Evidence of at least two years or 4,000 clock hours of satisfactory occupational experience within the past five years in the teaching specialty for which they are seeking endorsement. A candidate whose occupational experience has not been within the last five years must participate in a supervised technical update related to the teaching specialty or area of endorsement or complete a supervised internship of work experience of not less than six weeks related to the area of endorsement or teaching specialty.~~

~~3. Technical Professional License. An endorsement in a specialized trade and industrial education area will be granted to individuals who have:~~

~~a. Been recommended by an employing Virginia educational agency;~~

~~b. A license or are certified as a professional practitioner in the area in which one is to be teaching, if applicable, or can demonstrate competency in the area of trade and industrial education one is to be teaching;~~

~~c. Evidence of at least two years or 4,000 clock hours of satisfactory occupational experience within the past five years in the teaching specialty for which they are seeking endorsement. Candidates whose occupational experience has not been within the last five years must participate in a supervised technical update related to the teaching specialty or area of endorsement or complete a supervised internship of work experience of not less than six weeks related to the area of endorsement or teaching specialty; and~~

~~d. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional procedures in vocational education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours). The professional studies requirements may be met under a Provisional License.~~

~~C. Add-on endorsement requirements. A candidate must:~~

~~1. Hold a Collegiate Professional or Postgraduate Professional License with a teaching endorsement;~~

~~2. Demonstrate competency in the trade or technology to be taught;~~

~~3. Hold licensure for the trade or industrial area for which endorsement is sought based upon the prescribed standard or examination;~~

~~4. Have completed two years or 4,000 clock hours of satisfactory, full-time employment experience at the journeyman level or an equivalent level in the occupation within the last five years. Candidates whose occupational experience has not been within the last five~~

~~years must participate in a supervised technical update related to the teaching specialty or area of endorsement or complete a supervised internship of work experience of not less than six weeks related to the area of endorsement or teaching specialty; and~~

~~5. Have completed 3 semester hours in curriculum and instructional procedures specific to vocational industrial education.~~

**8VAC20-21-560. ~~Vocational education--vocational special needs (add-on endorsement).~~**

~~A. The program in vocational special needs (add-on endorsement) will ensure that the candidate has demonstrated the following competencies:~~

~~1. Understanding of vocational special needs programs and services; characteristics of students who are disadvantaged, disabled, and gifted; and program development, implementation, and evaluation.~~

~~2. Understanding of instructional methods and resources in career vocational, community-based, and transition programs for targeted populations in vocational education, including:~~

~~a. Use of learning and teaching styles to plan and deliver instruction;~~

~~b. Use of vocational assessment results to plan individual instruction strategies;~~

~~c. Ability to plan and manage a competency-based education system;~~

~~d. Ability to adapt curriculum materials to meet special student needs;~~

~~e. Use of a variety of classroom management techniques to develop an enhanced learning environment;~~

~~f. Use of different processes to improve collaboration with colleagues, parents, and the community; and~~

~~g. Ability to plan learning experiences that prepare individuals for transition to more advanced education and career development options.~~

~~3. Understanding of the planning, delivery, and management of work-based education programs such as community surveying, cooperative education, simulation, directed observation, shadowing, mentoring, and internship.~~

~~4. Understanding of strategies for enabling students to learn all aspects of particular industries—planning, management, finances, technical and production skills, labor and community issues, health and safety, environmental issues, and the technology associated with the specific industry.~~

~~5. Understanding of career/life planning procedures, transitioning processes and procedures, and career search techniques.~~

~~6. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements.~~

~~1. The candidate must have graduated from an approved teacher preparation program in vocational special needs; or~~

~~2. The candidate must have:~~

~~a. A baccalaureate degree with an endorsement in one area of vocational education or special education preK-12;~~

~~b. Twelve semester hours distributed in the following areas:~~

~~(1) Overview of vocational special needs programs and services: 3 semester hours;~~

~~(2) Instructional methods, curriculum and resources: 3 semester hours;~~

~~(3) Career/life planning, transitioning, occupational information, and delivery of cooperative education programs: 3 semester hours; and~~

~~(4) Purposes and practices and characteristics of special populations: 3 semester hours; and~~

~~e. Evidence of at least two years or 4,000 clock hours of satisfactory occupational experience in business or industry, or both, or complete a work experience internship under the supervision of an institution of higher education.~~

**8VAC20-21-570. Vocational education -- work and family studies.**

~~A. The program in work and family studies sciences will ensure that the candidate has demonstrated the following competencies:~~

~~1. Knowledge of the developmental processes of childhood, preadolescence, adolescence, and adulthood/aging and in creating and maintaining an environment in which family members develop and interact as individuals and as members of a group;~~

~~2. Knowledge of the decision-making processes related to housing, furnishings, and equipment for individuals and families with attention given to special needs and the diversity of individuals;~~

~~3. The ability to plan, purchase, and prepare food choices that promote nutrition and wellness;~~

~~4. Knowledge of the management of resources to achieve individual and family goals at different stages of the life span;~~

- ~~5. Knowledge of the sociological, psychological, and physiological aspects of clothing and textiles for individuals and families;~~
- ~~6. Knowledge of the management of families, work, and their inter relationships;~~
- ~~7. Knowledge of occupational skill development and career planning;~~
- ~~8. Knowledge of the use of critical science and creative skills to address problems in diverse family, community, and work environments;~~
- ~~9. Knowledge and skills necessary to teach leadership skills, organize and manage an effective co-curricular student organization and implement the organization's activities as an integral part of instruction;~~
- ~~10. The ability to plan, develop, teach, supervise, and evaluate programs in occupational programs at the secondary, postsecondary, and adult levels;~~
- ~~11. The ability to organize and implement Future Homemakers of America/Home Economics Related Occupations (FHA/HERO) programs as an integral part of classroom instruction; and~~
- ~~12. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.~~

~~B. Endorsement requirements. The candidate must have:~~

- ~~1. Graduated from an approved teacher preparation program in work and family studies;~~  
~~or~~
- ~~2. Completed 39 semester hours of course work distributed in the following areas:~~
  - ~~a. Development of individual and family: 9 semester hours;~~

- ~~b. Management, family finance, and consumer economics: 6 semester hours;~~
- ~~c. Food and nutrition: 6 semester hours;~~
- ~~d. Housing, home furnishing, and equipment: 6 semester hours;~~
- ~~e. Clothing and textiles: 3 semester hours;~~
- ~~f. Health: 3 semester hours;~~
- ~~g. Occupational program management: 3 semester hours; and~~
- ~~h. Documented work experience related to work and family studies: 3 semester hours.~~

~~3. Technical Professional License. An endorsement in a specialized work and family studies area, such as child care occupations, consumer services, family and human services, fashion design occupations, food occupations, hospitality occupations, interior design occupations, and home furnishings occupations, and home and institutional services, may be granted to individuals who have:~~

- ~~a. Been recommended by an employing Virginia educational agency;~~
- ~~b. A license or are certified as a professional practitioner in the area in which one is to be teaching, if applicable, or demonstrate competency in the specialized area of work and family studies;~~
- ~~c. In the area of occupational experience, evidence of at least two years or 4,000 clock hours of satisfactory occupational experience within the past five years in the teaching specialty for which they are seeking endorsement.~~

- ~~a. Completed professional studies requirements (human growth and development: 3 semester hours; curriculum and instructional~~

~~procedures in vocational education: 3 semester hours; and applications of instructional technology or foundations of education: 3 semester hours). The professional studies requirements may be met under a Provisional License.~~

**8VAC20-21-571. Visual Arts preK-12.**

A. The program in visual arts preK-12 will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of the visual arts discipline as defined in the Virginia Standards of Learning, and how they provide a necessary foundation for teaching the visual arts;

2. Understanding of the knowledge, skills, and processes for teaching art appropriate to the developmental levels of students in preK-12 including the following areas:

a. Knowledge and experience in planning, developing, administering, and evaluating a program of visual arts education;

b. Two-dimensional media and concepts: basic and complex techniques and concepts in two-dimensional design, drawing, painting, printmaking, computer graphics and other electronic imagery;

c. Three-dimensional media and concepts: basic and complex techniques and concepts in three-dimensional design, sculpture, ceramics, fiber arts, and crafts;

d. Knowledge and understanding for teaching the visual arts, including: visual communication and production, cultural context and art history, judgment and criticism, and aesthetics;

e. The relationship of visual arts and culture and the influence of visual arts on past and present cultures;

f. Related areas of visual arts, such as architecture, dance arts, music, theater arts, photography, and other expressive arts;

g. Knowledge and understanding of technological and artistic copyright laws;

h. Knowledge and understanding of safety, including use of toxic art material in various aspects of studio and classroom work;

i. Assessment strategies to foster, support, and enhance student visual arts learning; and

ij. Observation and student teaching experiences at the elementary, middle and secondary levels.

3. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

B. Endorsement requirements. The candidate must have:

1. Graduated from an approved teacher preparation program in visual arts; or

2. Completed a major in visual arts or 36 semester hours in art with course distribution in the following areas:

a. Two-dimensional media: 12 semester hours;

b. Three-dimensional media: 12 semester hours;

c. Cultural context and art history, judgment and criticism, and aesthetics: 9 semester hours; and

d. Related areas of the fine arts: 3 semester hours.

**8VAC20-21-600. Reading specialist.**

A. The reading specialist program will ensure that the candidate has demonstrated the following competencies:

1. Assessment and diagnostic teaching. The candidate must:

- a. Demonstrate expertise in the use of formal and informal screening, diagnostic and progress monitoring assessment and screening measures (formal and informal) for language proficiency, concepts of print, phoneme awareness, letter recognition, ~~sound-symbol knowledge, single word recognition,~~ decoding, ~~word-attack skills, reading,~~ fluency, vocabulary, reading levels, word recognition in isolation and context, and oral and silent reading comprehension; and
- b. Demonstrate expertise in the ability to use diagnostic data to tailor instruction for acceleration, intervention, remediation, and accelerate, and remediate, ~~using~~ flexible skill-level groupings ~~as necessary.~~

2. Oral communication. The candidate must:

- a. Demonstrate expertise in the knowledge, skills, and processes necessary for teaching oral language (~~including~~ speaking and listening);
- b. Demonstrate expertise in developing students' ~~phonemic awareness/phonological awareness association~~ phonemic awareness/phonological awareness skills;
- c. Demonstrate effective strategies for facilitating the learning of standard English by speakers of other languages and dialects;

- d. Demonstrate an understanding of the unique needs of students with language differences and delays; and
- e. Demonstrate the ability to promote creative thinking and expression, as through storytelling, drama, choral/oral reading, etc.

3. Reading/literature. The candidate must:

- ~~a. Demonstrate an understanding of the role of the family in developing literacy;~~
- ~~b. Demonstrate the ability to create appreciation of the written word and the awareness of the printed language and writing system;~~
- ~~c. Develop an understanding of the linguistic, sociological, cultural, cognitive, and psychological basis of the reading process;~~
- d. Demonstrate expertise in explicit phonics instruction, including an understanding of sound/symbol relationships, syllables, phonemes, morphemes, decoding skills, and word attack skills;
- ~~e. Demonstrate expertise in the use of cuing systems of language, including knowledge of how phonics, syntax, and semantics interact as the reader constructs meaning;~~
- e. Demonstrate expertise in the morphology of English including inflections, prefixes, suffixes, roots, and word relationships;
- f. Demonstrate expertise in strategies to increase vocabulary;
- g. Demonstrate expertise in the structure of the English language, including and understanding of syntax, semantics, and vocabulary development;

- h. Demonstrate expertise in reading comprehension strategies, including a repertoire of questioning strategies, understanding the dimensions of word meanings, teaching predicting, summarizing, clarifying, and associating the unknown with what is known, summarizing and retelling skills, and guiding students to make connections beyond the text.
  - i. Demonstrate expertise in the ability to teach strategies in literal, interpretive, critical, and evaluative comprehension.
  - j. Demonstrate the ability to develop comprehension skills in all content areas;
  - k. Demonstrate the ability to foster appreciation of a variety of literature; and
  - l. Understand the importance of promoting independent reading and reading reflectively by selecting quality literature, including fiction and nonfiction, at appropriate reading levels.
4. Writing. The candidate must:
- a. Demonstrate expertise in the knowledge, skills, and processes necessary for teaching writing, including the domains of composing, written expression, and usage and mechanic and the writing process of planning, drafting, revising, editing, and sharing. ~~grammar, punctuation, spelling, syntax, etc.;~~
  - b. Demonstrate expertise in systematic spelling instruction, including awareness of the purpose and limitations of "invented spelling," ~~the connection between stages of language acquisition and spelling,~~ orthographic patterns, and strategies for promoting generalization of spelling study to writing; and
  - b. ~~Demonstrate the ability to promote creative thinking and expression through imaginative writing, etc.~~

c. Demonstrate expertise to teach the writing process: plan draft, revise, edit, and share in the narrative, descriptive, and explanative modes.

~~5. Research. The candidate must demonstrate the ability to guide students in their use of technology for both process and product as they work with reading, writing, and research.~~

5. Technology. ~~Research.~~ The candidate must demonstrate expertise ~~the ability to guide students~~ in their use of technology for both process and product as they work to guide students with reading, writing, and research.

6. Leadership and specialization. The candidate must:

~~a. Demonstrate expertise in an understanding of language acquisition;~~

~~d.~~ b. Demonstrate an understanding of child psychology, including personality and learning behaviors;

c. Demonstrate an understanding of the needs of high achieving students and of strategies to challenge them at appropriate levels;

~~e.~~ d. Demonstrate an understanding of the significance of cultural contexts upon language;

~~b.~~ e. Demonstrate an understanding of varying degrees of learning disabilities;

f. Demonstrate expertise with educational measurement and evaluation including validity, reliability, and normative comparisons in test design and selections;

g. Demonstrate expertise to interpret grade equivalents, percentile ranks, normal curve equivalents, and standards scores.

~~g. Demonstrate expertise utilizing linguistic skills in diagnoses;~~

h. Demonstrate the ability to instruct and advise teachers in the skills necessary to differentiate reading instruction for both low and high achieving readers;

i. Demonstrate the ability to organize and supervise the reading program within the classroom, school, or division;

j. Demonstrate effective communication skills in working with a variety of groups, including parents, teachers, administrators, community leaders, etc.; and

k. Demonstrate knowledge of current research and exemplary practices in English/reading.

B. Endorsement requirements. The candidate must have completed an approved graduate-level reading specialist approved preparation program (master's degree required) that includes course experiences of at least 30 semester hours of graduate course work in the competencies listed, as well as a practicum experience in the diagnosis and remediation of reading difficulties.

### **8VAC20-21-610. School counselor preK-12.**

A. The school counselor preK-12 program will ensure that the candidate has demonstrated the following competencies:

1. The ability to support students by cooperatively working with parents/guardians and teachers.

2. Understanding of the principles and theories of human growth and development throughout the lifespan and their implications for school guidance and counseling.

3. Understanding of the social and cultural foundations of education and their implications for school guidance and counseling programs.

4. Understanding of lifespan career development.
5. Understanding of the skills and processes for counseling students to include:
  - a. Individual and group counseling for academic development;
  - b. Individual and group counseling for career development; and
  - c. Individual and group counseling for personal/social development.
6. Understanding of the knowledge, skills, and processes for providing developmental group guidance, including:
  - a. Academic development;
  - b. Career development; and
  - c. Personal/social development.
7. Understanding of the skills and processes related to the school counseling program at the elementary, middle, and secondary levels, including:
  - a. Characteristics of learners at the elementary, middle, and secondary levels;
  - b. Program planning;
  - c. Coordination;
  - d. Consultation; and
  - e. Staffing patterns.
8. Understanding of the knowledge, skills, and processes of student appraisal and assessment relative to school guidance and counseling programs, including:

- a. Individual assessment; and
- b. Group assessment.

9. Understanding of the counseling professional, including:

- a. Legal considerations;
- b. Ethical considerations; and
- c. Professional issues and standards.

10. Understanding of the skills and processes of research and evaluation aimed at improving school guidance and counseling programs.

B. Endorsement requirements.

1. Option I. The candidate must have:

- a. An earned master's degree from an approved counselor education program which shall include at least 100 clock hours of clinical experiences in the preK-6 setting and 100 clock hours of clinical experiences in the grades 7-12 setting; and
- b. Two years of successful, full-time teaching experience or two years of successful experience in guidance and counseling. Two years of successful, full-time experience in guidance and counseling under a ~~provisional~~ alternate route license may be accepted to meet this requirement.

2. Option II. The candidate must have:

- a. An earned master's degree from an accredited college or university and certification from an approved counselor education program that the candidate has

completed sufficient course work and clinical experience to acquire the competencies described herein; and

b. Two years of successful, full-time teaching experience or two years of successful, full-time experience in guidance and counseling. Two years of successful, full-time experience in guidance and counseling under a provisional nonrenewable license may be accepted to meet this requirement.

**~~8VAC20-21-640. Visiting teacher.~~**

~~A. The visiting teacher program will ensure that the candidate has demonstrated the following competencies:~~

- ~~1. Understanding of the knowledge, skills, and processes for organizing and delivering visiting teacher services in the schools.~~
- ~~2. Understanding of the knowledge, skills, and processes for effective casework practice.~~
- ~~3. Understanding of the foundations for delivery of visiting teacher services (community organization, group processes, family dynamics, abnormal psychology, human growth and development, assessment/evaluation, education of exceptionalities, and school law) to ensure student academic achievement and student growth and development.~~

~~B. Endorsement requirements. The candidate must have:~~

- ~~1. An earned master's degree from an accredited college or university;~~
- ~~2. Completed a minimum of 30 graduate hours which shall include a course in each of the following:~~
  - ~~a. School social work practice;~~
  - ~~b. Community organization;~~

- ~~e. Casework practice;~~
- ~~d. Group process;~~
- ~~e. Family dynamics;~~
- ~~f. Abnormal psychology;~~
- ~~g. Human growth and development (birth through adulthood);~~
- ~~h. Assessment/evaluation;~~
- ~~i. Education of exceptionalities; and~~
- ~~j. School law;~~

- ~~3. Completed one year of successful, full-time experience in an accredited educational setting either as a teacher or as a pupil personnel professional; and~~
- ~~4. Completed one year of full-time supervised experience as a visiting teacher in an accredited school.~~

**VAC 20-21-641. Mathematics specialist for elementary and middle education.**

A. A mathematics specialist is a teacher in the elementary or middle grades who has interest and special preparation in mathematics content, scientifically based research in the teaching and learning of mathematics, diagnostic and assessment methods, and leadership skills. The school-based mathematics specialist will serve as a resource in professional development, instructing children who have learning difficulties in mathematics, curriculum development and implementation, mentoring new teachers, and parent and community education.

B. The mathematics specialist program will ensure that the candidate has completed at least three

years of successful classroom teaching experience in which the teaching of mathematics was an important responsibility and demonstrated the following competencies:

1. Understanding of the knowledge, skills, and processes of the Virginia Mathematics Standards of Learning and how curriculum may be organized to teach these standards to diverse learners;
2. Understanding of a core knowledge base of concepts and procedures within the discipline of mathematics, including the following strands: number systems and number theory; geometry and measurement; statistics and probability; and functions and algebra;
3. Understanding of the sequential nature of mathematics and the mathematical structures inherent in the content strands;
4. Understanding of the connections among mathematical concepts and procedures and their practical applications;
5. Understanding of and the ability to use the five processes — becoming mathematical problem solvers, reasoning mathematically, communicating mathematically, making mathematical connections, and using mathematical representations — at different levels of complexity;
6. Understanding of the history of mathematics, including the contributions of different individuals and cultures toward the development of mathematics and the role of mathematics in culture and society;
7. Understanding of major current curriculum studies and trends in mathematics;
8. Understanding of the role of technology and the ability to use graphing utilities and computers in the teaching and learning of mathematics;
9. Understanding of and the ability to select, adapt, evaluate and use instructional materials and resources, including professional journals and technology;
10. Understanding of and the ability to use strategies for managing, assessing, and monitoring student learning, including diagnosing student errors;
11. Understanding of and the ability to use strategies to teach mathematics to diverse learners;

12. Understanding of leadership skills needed to improve mathematics programs at the school and division levels, including the needs of high and low-achieving students and of strategies to challenge them at appropriate levels; child psychology, including personality and learning behaviors; educational measurement and evaluation; and effective professional development approaches; and

13. Understanding of and proficiency in grammar, usage, and mechanics and their integration in writing.

C. Endorsement requirements. The candidate must have:

1. Completed at least three years of successful classroom teaching experience in which the teaching of mathematics was an important responsibility; and

2. Graduated from an approved mathematics specialist preparation program (master's level); or completed a master's level program in mathematics, mathematics education, or related education field with 30 semester hours of graduate course work in the competencies listed, including at least 21 hours of coursework in undergraduate or graduate-level mathematics.

**8VAC20-21-650. Vocational evaluator.**

A. The vocational evaluator program will ensure that the candidate has demonstrated the following competencies:

1. Understanding of the foundations of vocational evaluation and career assessment, including philosophy and process of vocational evaluation/assessment, use of occupational and labor market information, and functional aspects of disability.

2. Understanding of the basic concepts and skills of planning for and delivering vocational evaluation and career assessment services, including the use of vocational

interviewing, individualized service planning, report development and communication, and use of modifications and accommodations.

3. Understanding of the content, processes, and skills necessary to administer and report findings of standardized testing, including knowledge of tests and measurements and selection and use of appropriate instruments.

4. Understanding and knowledge of specific assessment techniques and skills and the processes for conducting vocational evaluation and career assessment, including:

- a. Job and training analysis;
- b. Work samples and systems;
- c. Situational and community-based assessment;
- d. Behavioral observation; and
- e. Learning and functional skills assessment.

B. Endorsement requirements.

1. Option I. The candidate must be certified as a Vocational Evaluation Specialist (CVE), meeting all standards and criteria of the Commission on Certification of Work Adjustment and Vocational Evaluation Specialist (CCWAVES).

2. Option II. The candidate must have a master's degree in vocational evaluation, ~~vocational education~~ career and technical education, special education, or rehabilitation counseling and completed 15 graduate semester hours distributed in the following areas:

- a. Tests and measurements: 3 semester hours;
- b. Medical and educational aspects of disability: 3 semester hours;

- c. Occupational information and job analysis: 3 semester hours;
- d. Purposes/practices of vocational evaluation: 3 semester hours; and
- e. Career/life planning/transition services: 3 semester hours.